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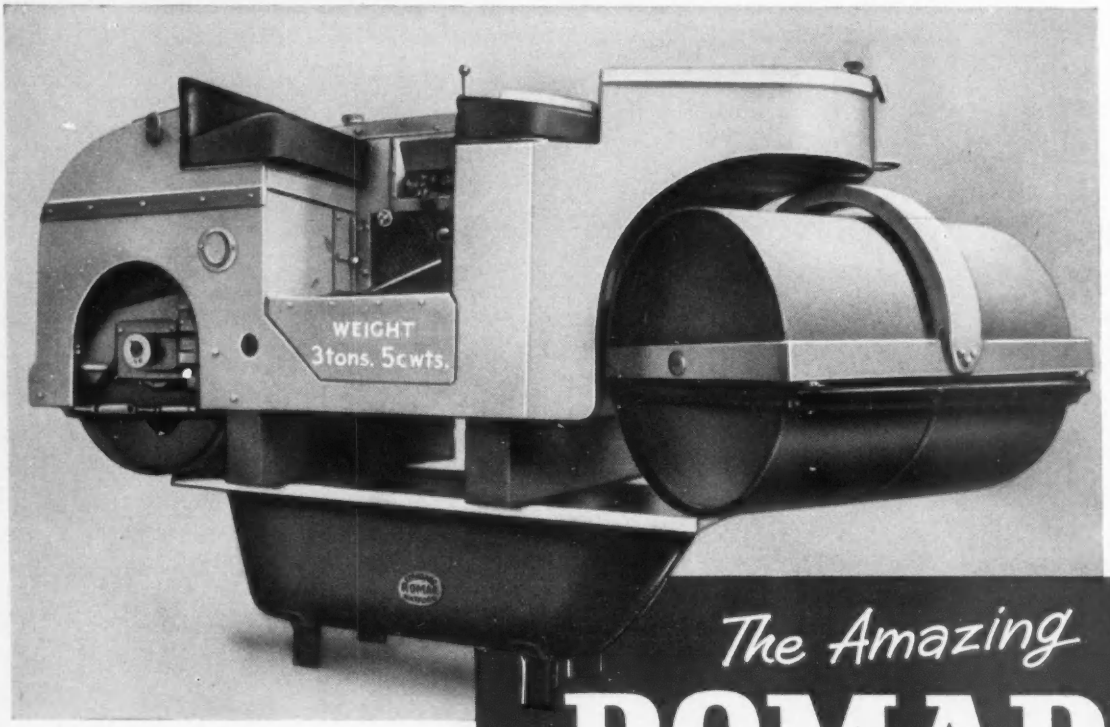

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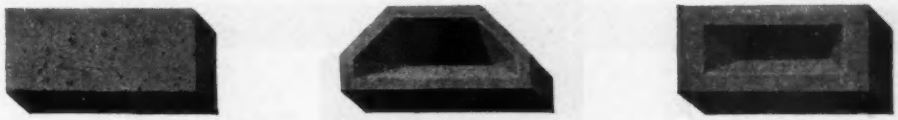

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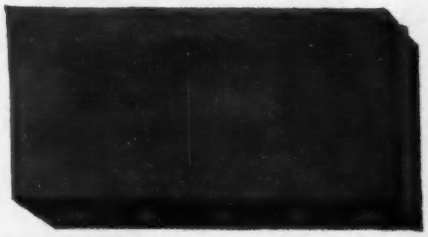

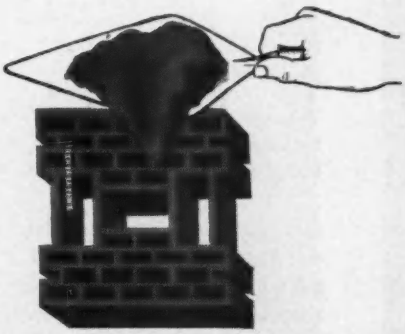

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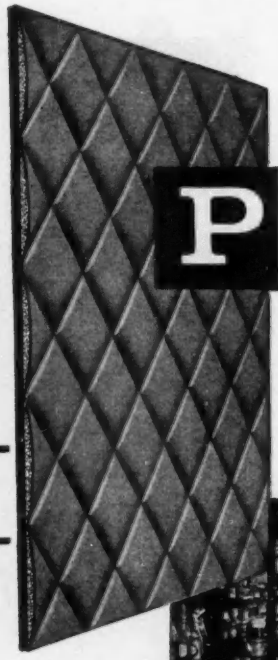

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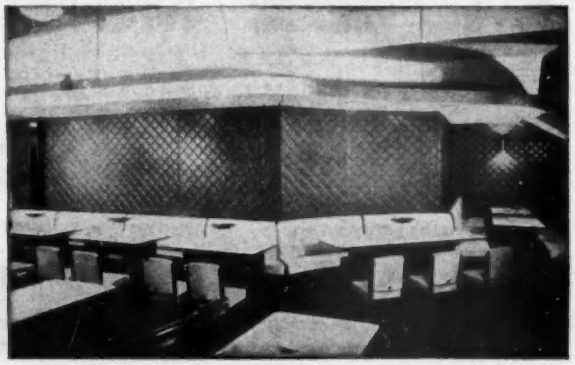

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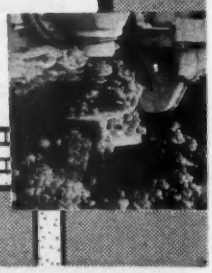

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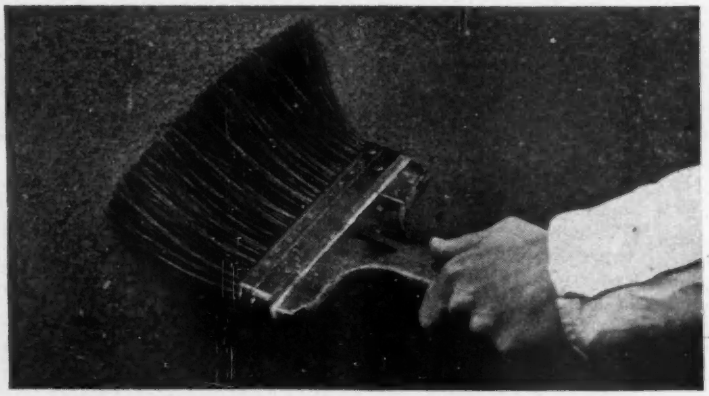

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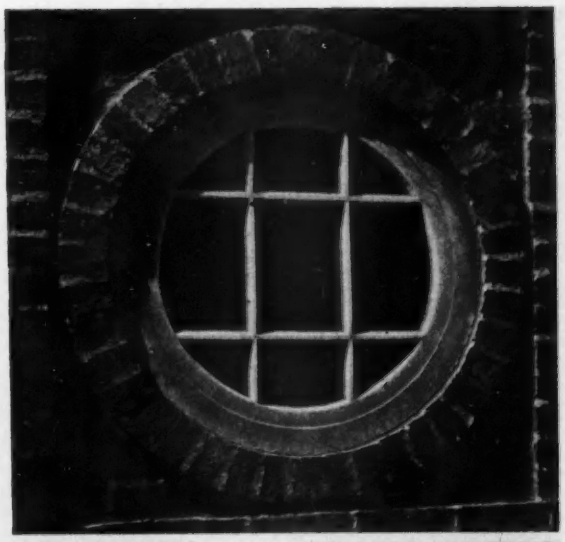

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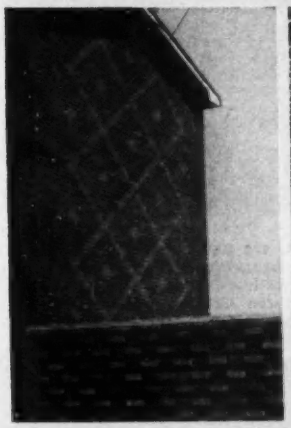

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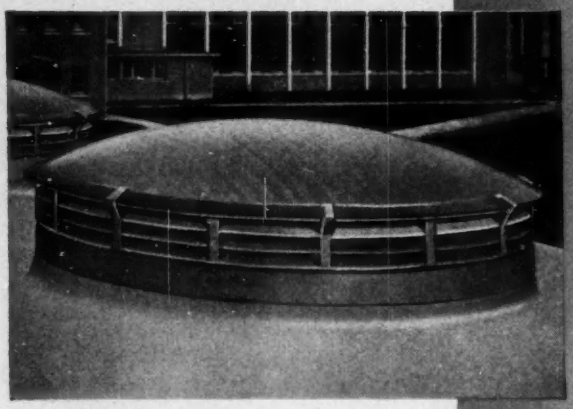
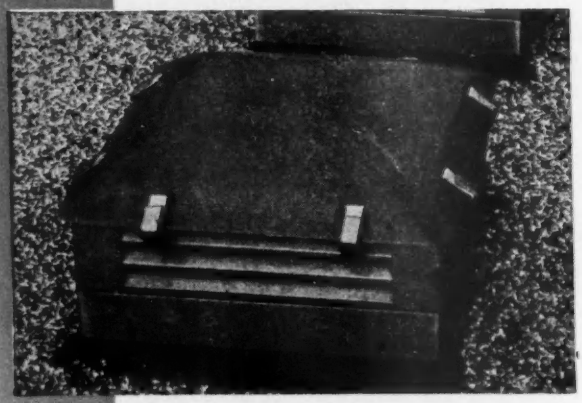


Circular Dome ventilators are supplied from 18" diameter to 72" diameter. This is one of a number of units installed at the Gormanstown Franciscan College, Co. Meath. (*Architect: John C. Thompson B. Arch., A.R.I.B.A.*)



Rectangular dome ventilators are available from 30" x 30" to 48" x 72". Large numbers have been specified by the Chief Architect at Crawley New Town. (*Chief Architect: H. S. Howgrave-Graham A.R.I.B.A., A.M.T.P.I.*)

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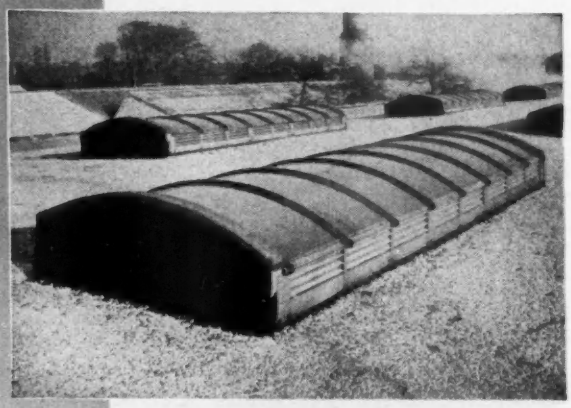

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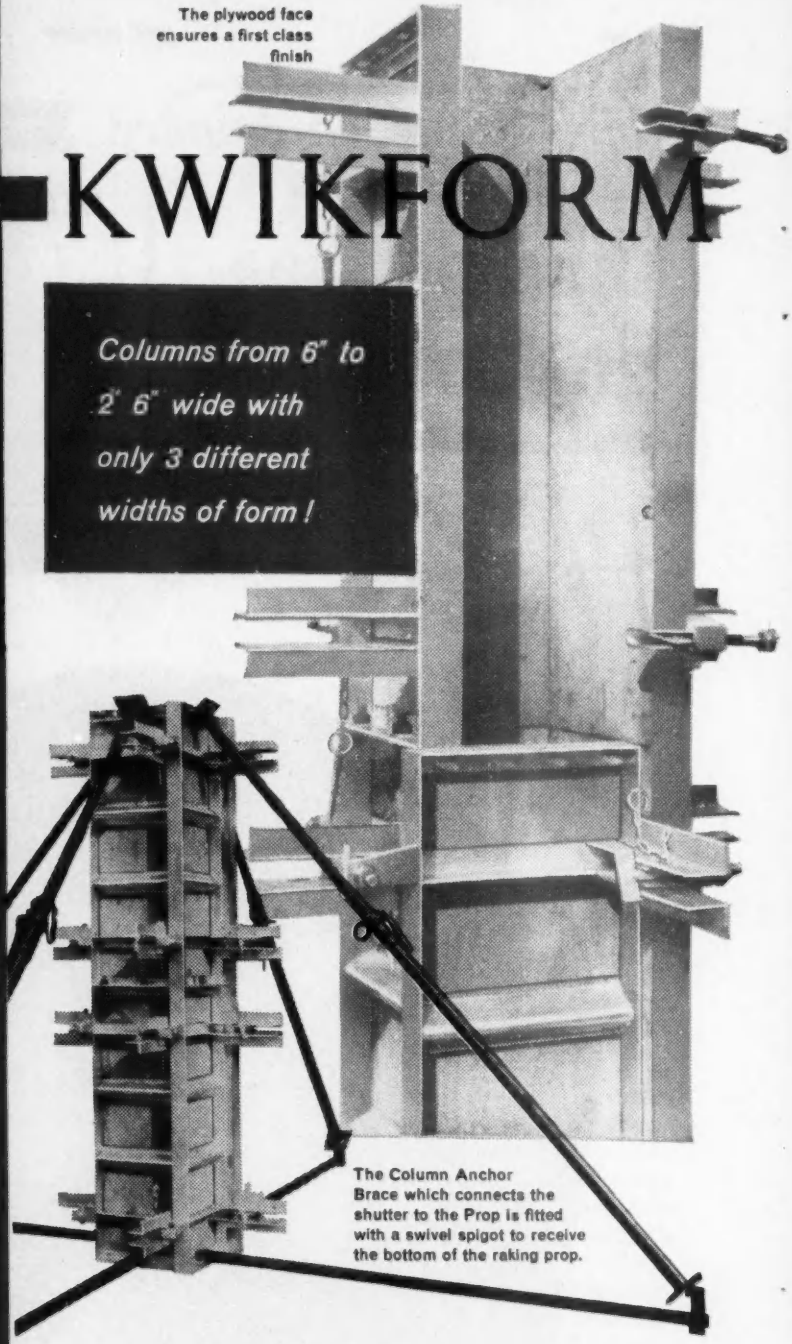

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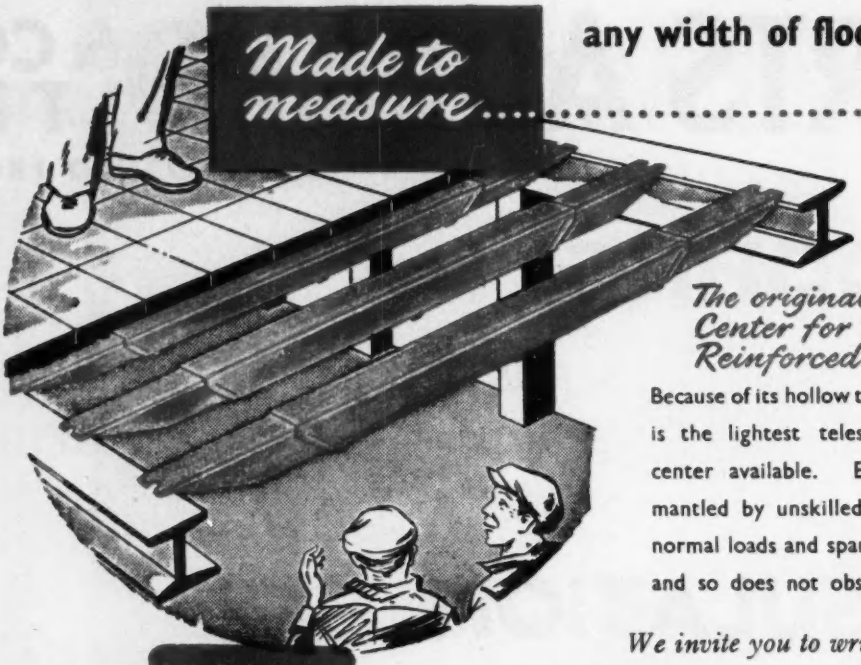

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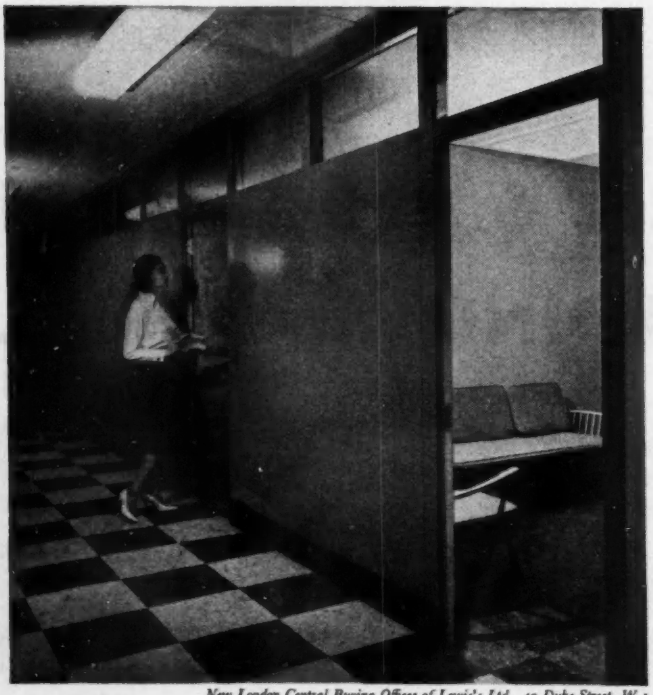

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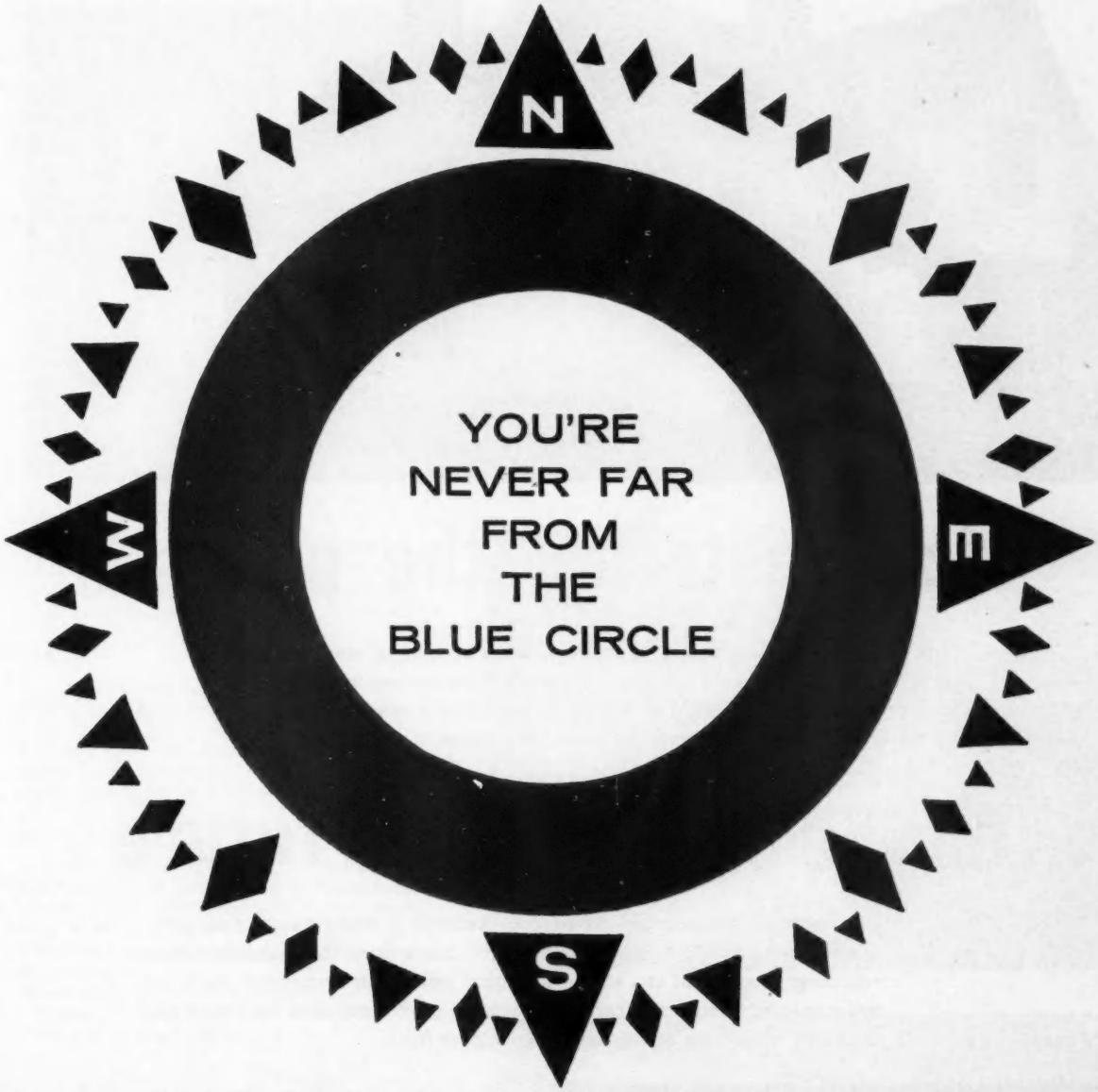

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Top:

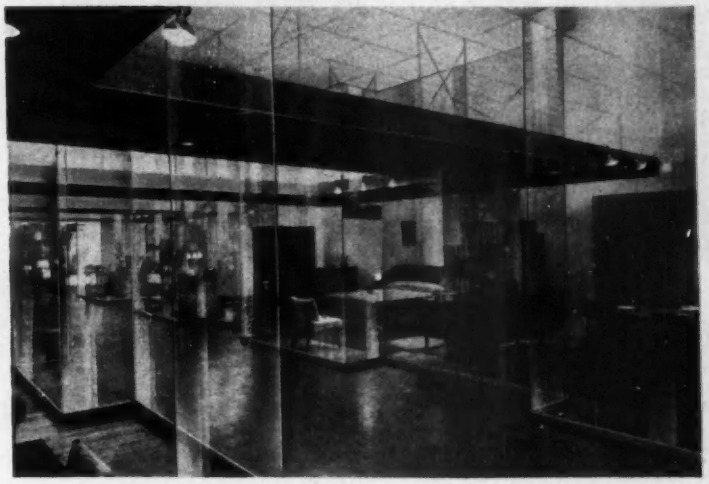
Fashion Shoe Shop for T. Elliott & Sons Ltd., Caltex House, Brompton Road, S.W.3. Designed and installed by W. T. Booth Ltd., Kingston-on-Thames.

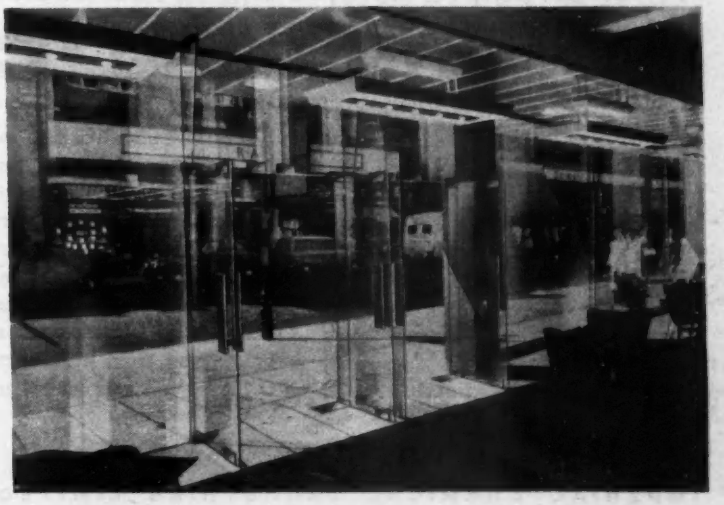
Right:

Arcade Showroom with $\frac{5}{16}$″ — $\frac{3}{8}$″ Plate Glass jointed with 'S.H.' Glass Cement and support clips.
Harrison Gibson Ltd., Bromley.
Architect: Donald Forrest, A.R.I.B.A.
Shopfitters: Frank W. Clifford Ltd.

Bottom right:

Shopfront entrance showing $\frac{3}{8}$″ 'Armourplate' Glass Doors and surround in the 'Blackfriars' System of All-Glass Construction. Shopfronts in $\frac{3}{8}$″ Plate Glass constructed with 'S.H.' Glass Cement joints, incorporating Glass stiffeners and support clips.
Shopfront for Davis's (Woolwich) Ltd.
Designed by Bernard J. Owen and installed by their own Building Department.





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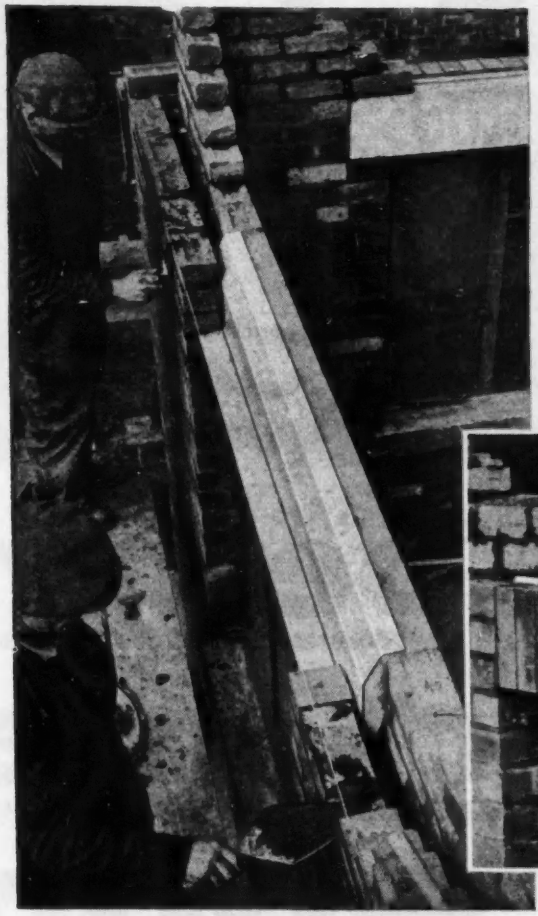
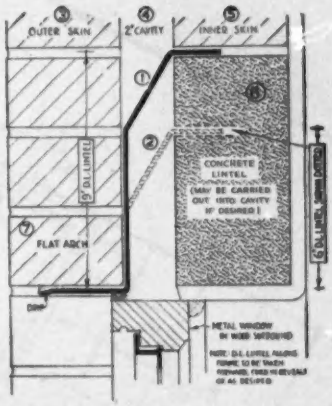


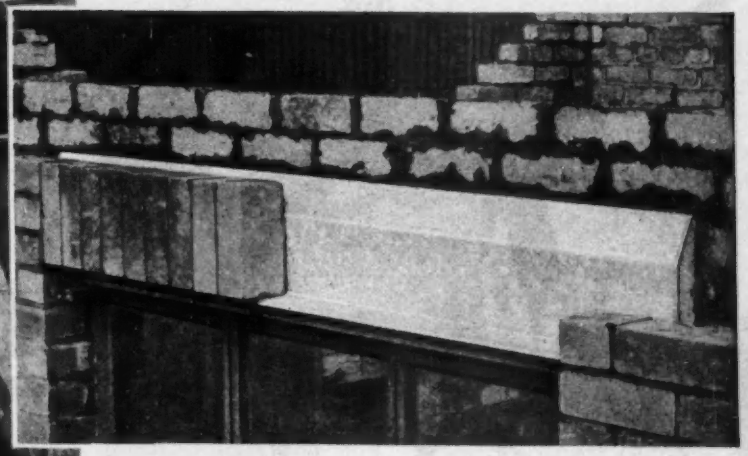
SECTION SHOWING TYPICAL DETAIL

(1) 9 in. Dorman Long Lintel
(2) 6 in. Dorman Long Lintel (shown dotted)
(3) Outer skin
(4) Cavity
(5) Inner skin
(6) Inside concrete lintel (carried out into cavity if so desired)
(7) Flat arch

The wide 'turn-in' of the Dorman Long Lintel allows the cavity to be varied from 2 in. to 2¾ in. in width.

Patent No. 694214





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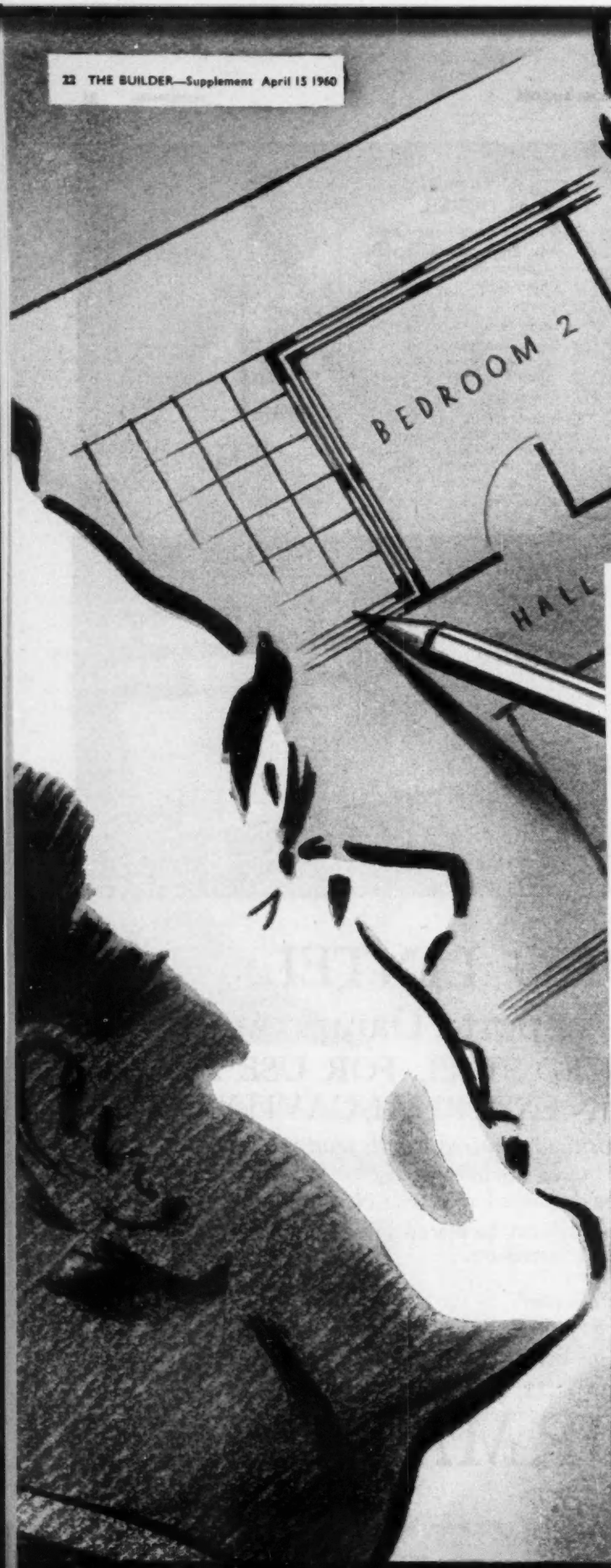

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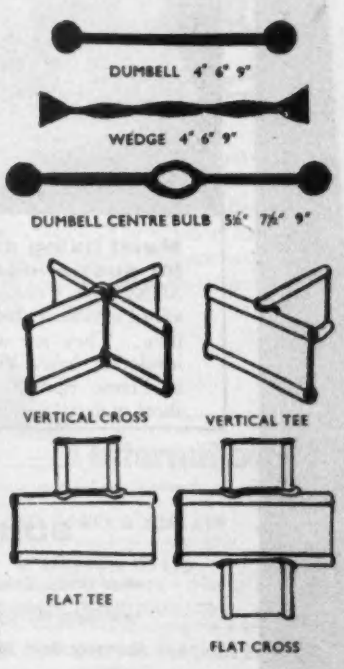

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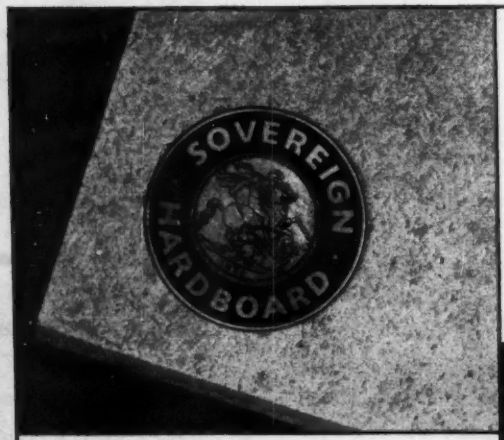

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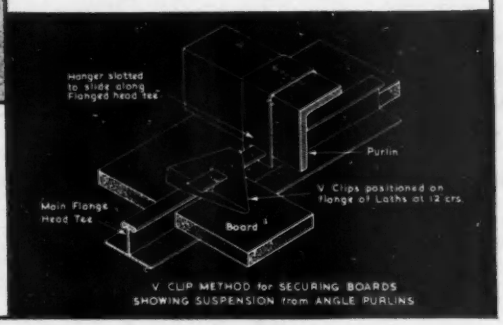

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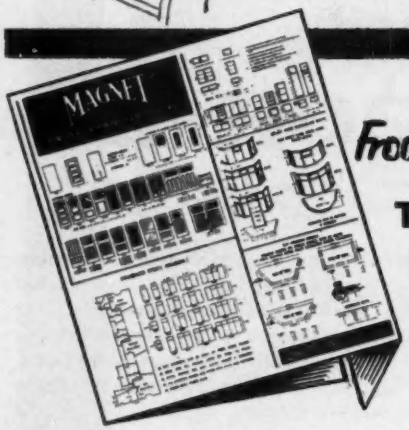

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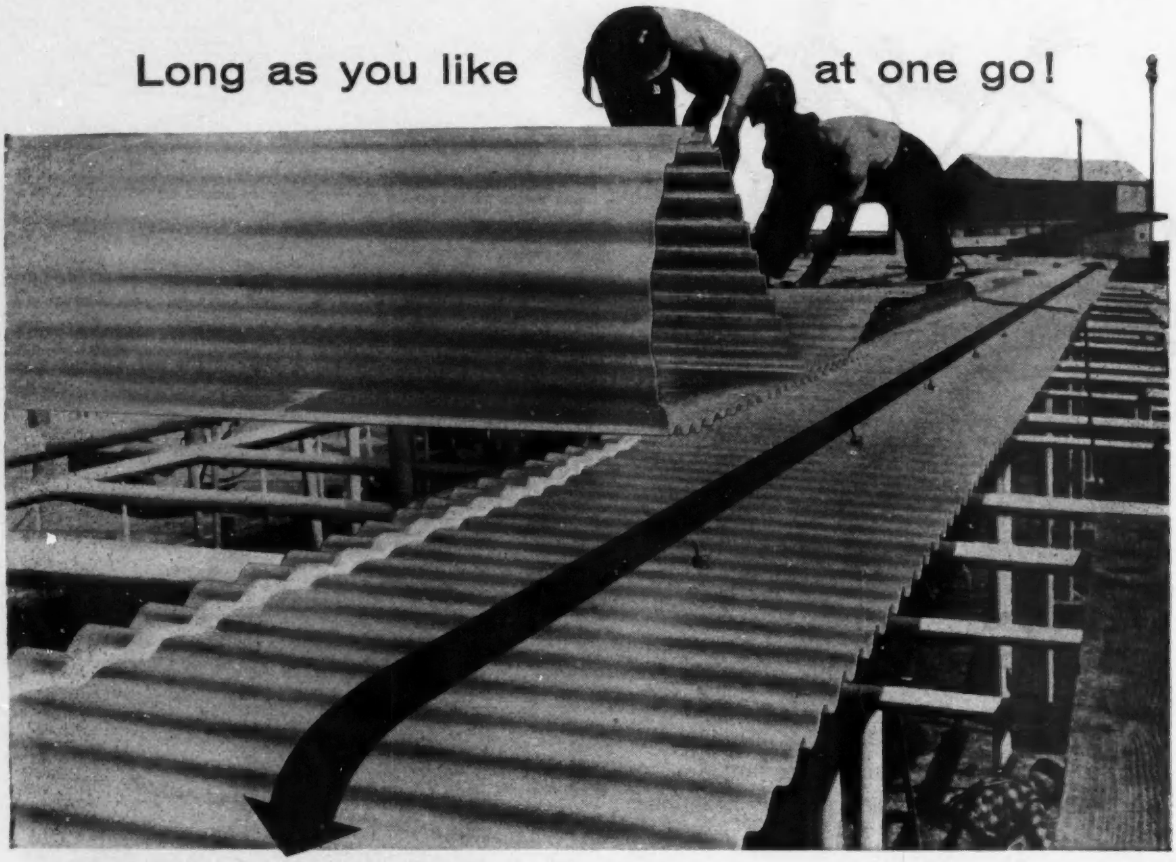

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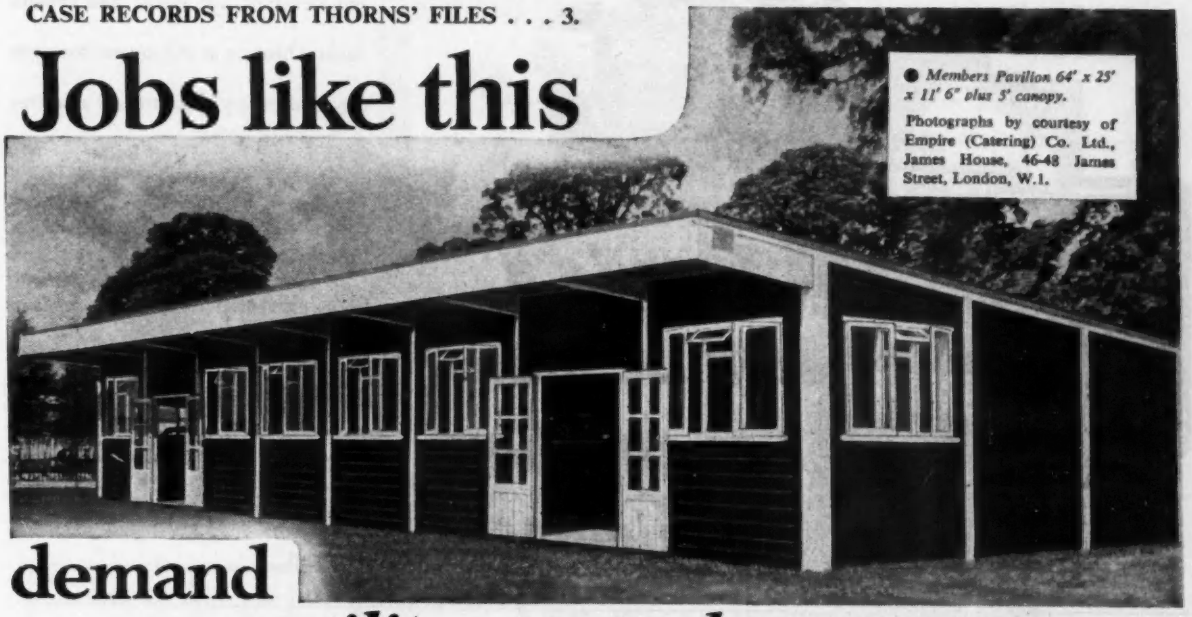

● *Members Pavilion 64' x 25' x 11' 6" plus 5' canopy.*

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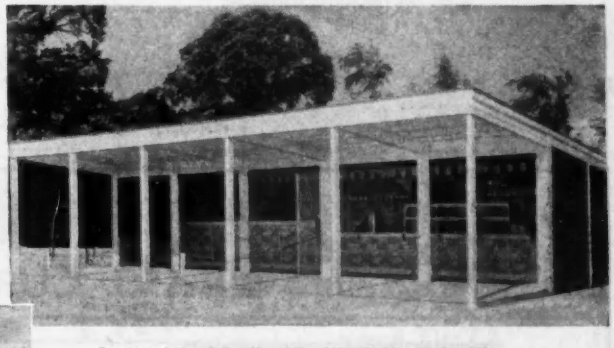
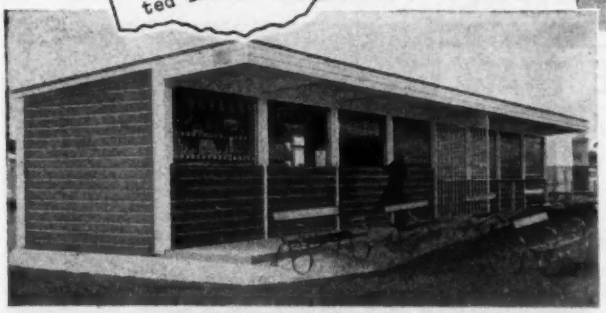


● *Grand Stand Pavilion 40' x 15' x 9' 6" x 8' plus 10' canopy.*



●*Public Pit Pavilion 64' x 11' x 8' x 7' plus 5' canopy.*

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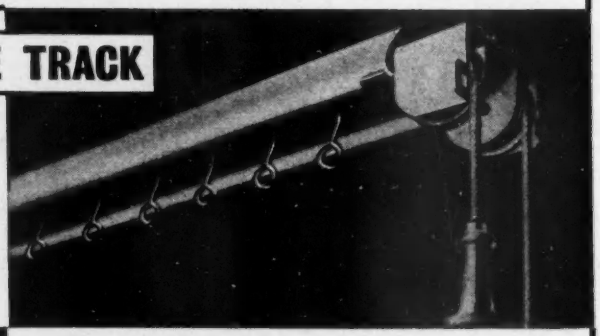

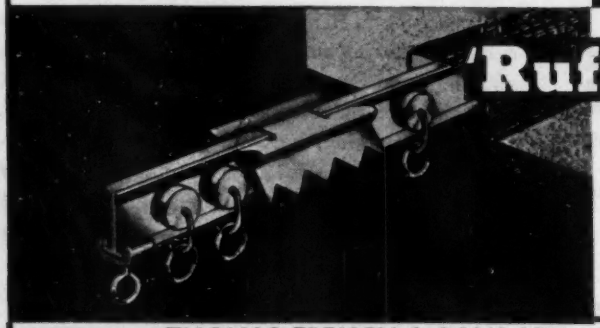

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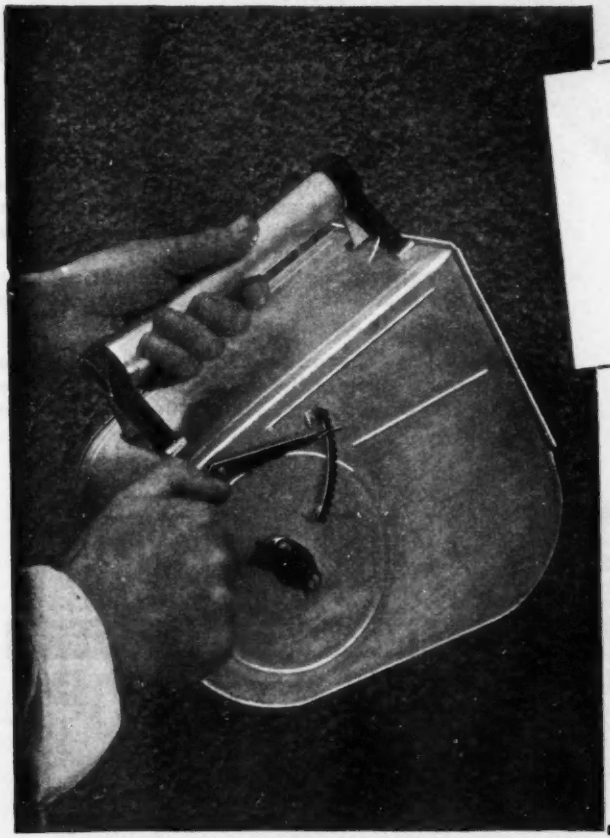

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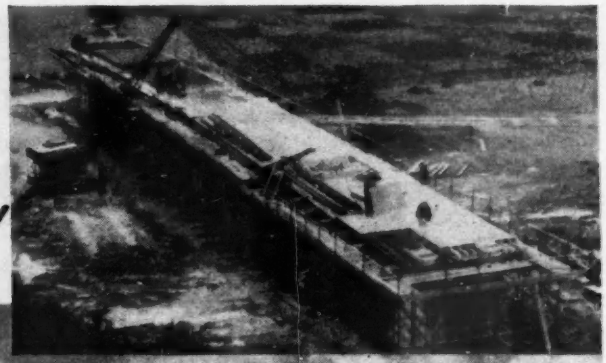

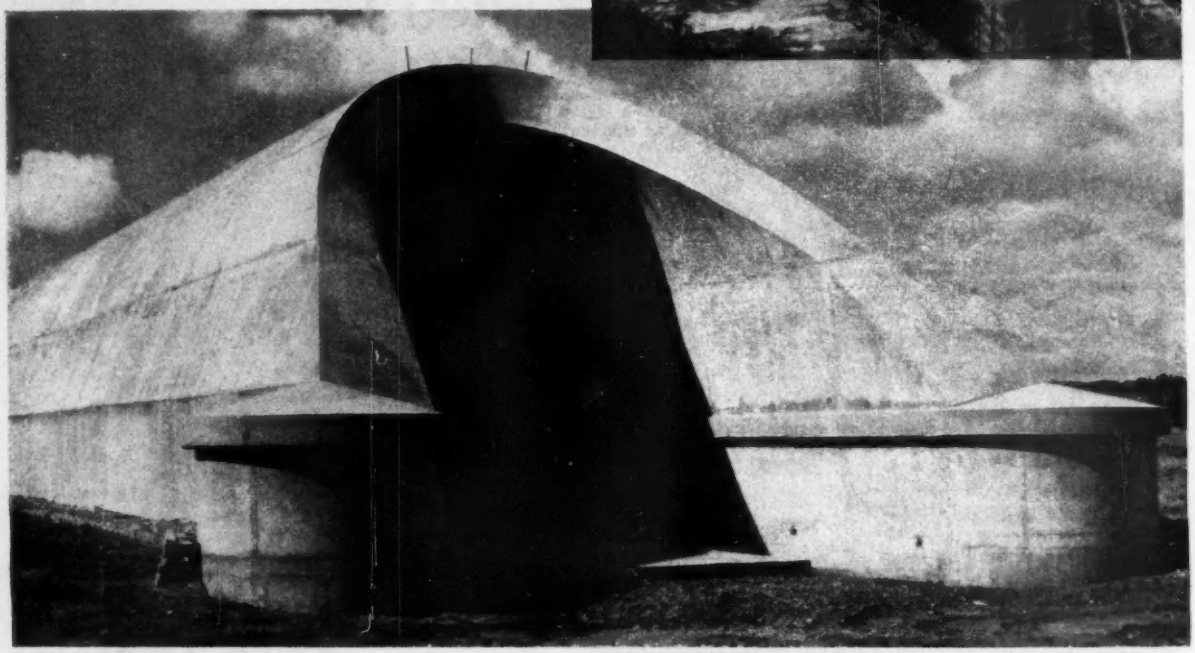

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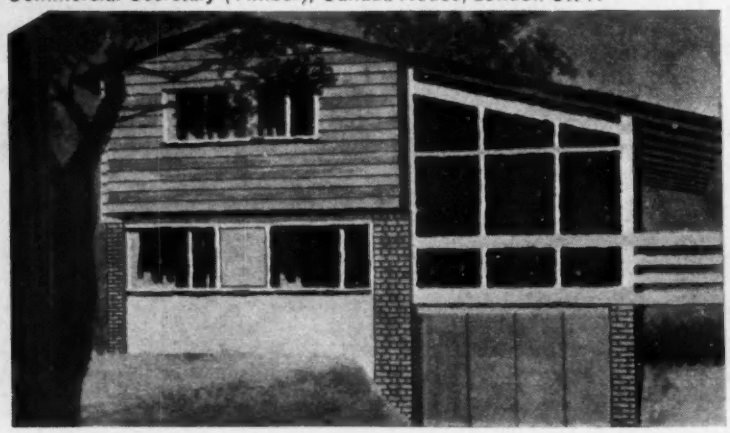

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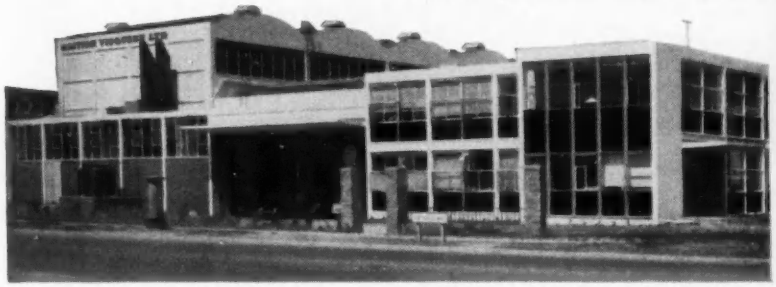

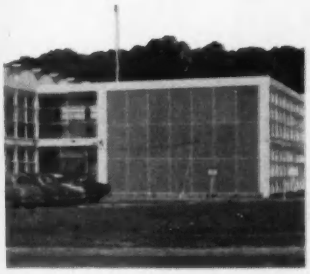

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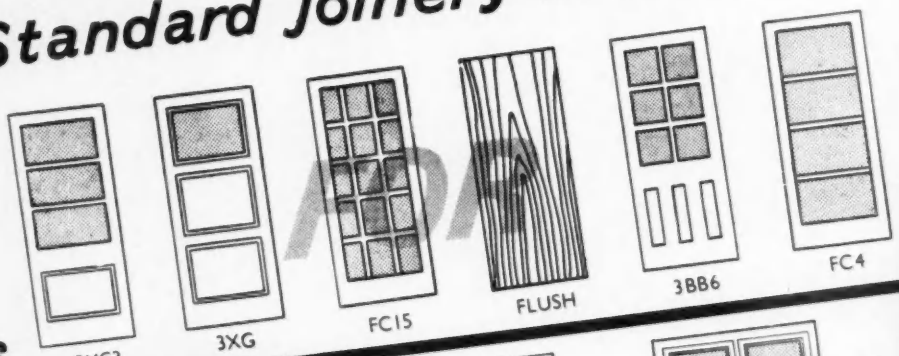

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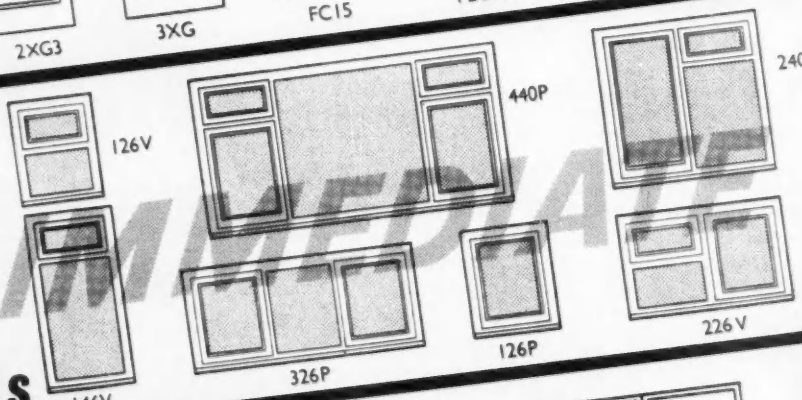

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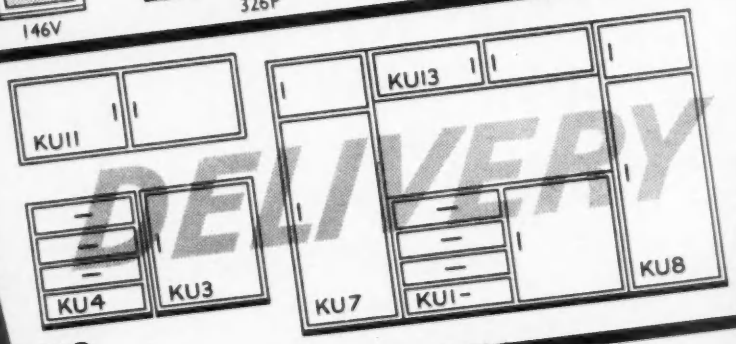

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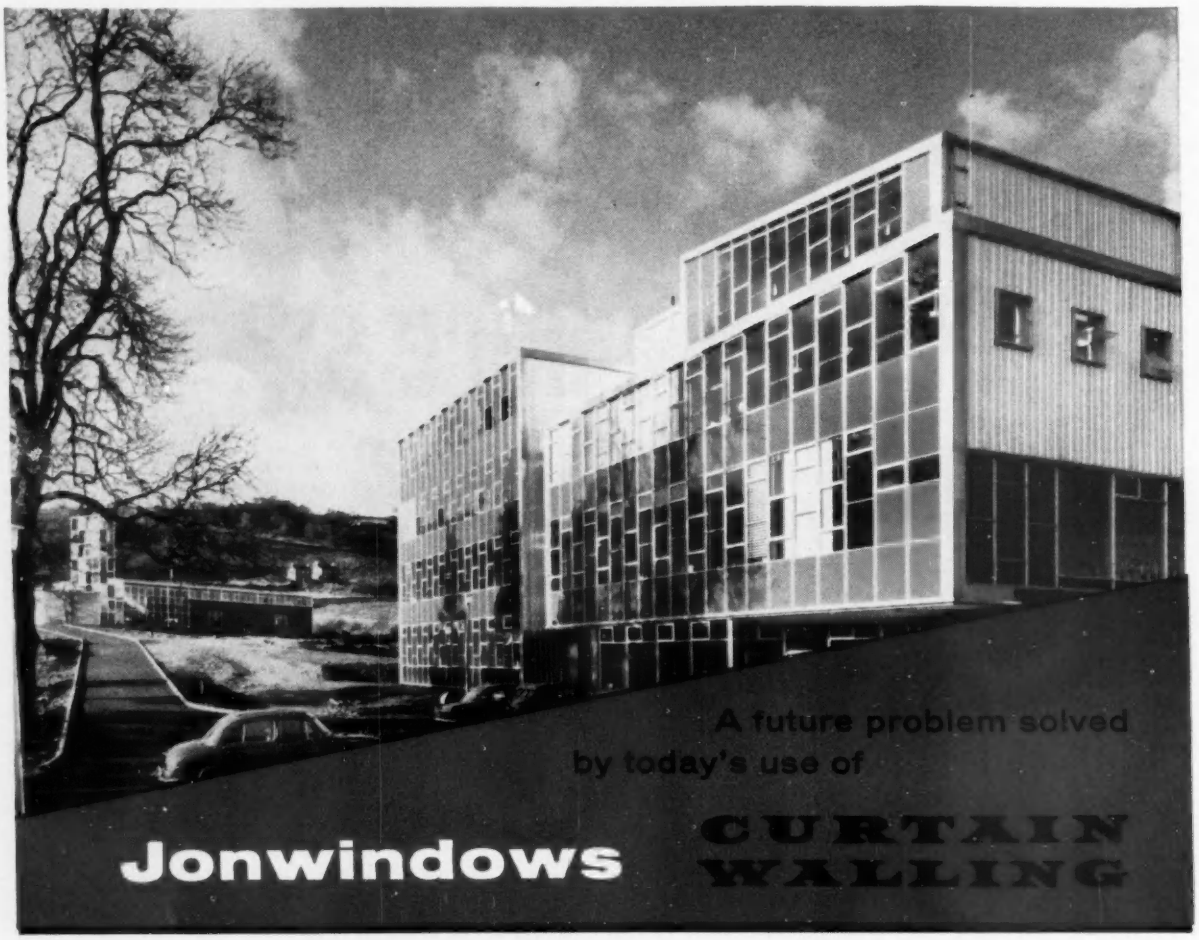

The Ystrad Mynach College of Further Education

This building is situated in a predominantly mining and industrial district, so precautions had to be taken against possible future subsidence. The result is a rigid structure bearing on the ground at a limited number of points, with facilities provided for re-levelling the building by hydraulic jacks. The ground floor slab is not suspended as is the moving superstructure.

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Another difficulty is that the 4-storey teaching block is actually two buildings entirely separated by a 3″ structural break and which could move either towards or away from each other in the event of subsidence. Curtain walling was even used at this break, a weathered sliding joint in pressed metal trims (a breather joint) being designed to allow for movement—and this joint had to be incorporated wherever the break line was crossed by the curtain walling; in fact it was required in blind boxes, cills, etc., as well, for they had been made firm fixtures to the hanging curtain.

These are but two examples of the difficulties which had to be overcome in one particular job, but Jonwindows Curtain Walling has been developed through such work as this.

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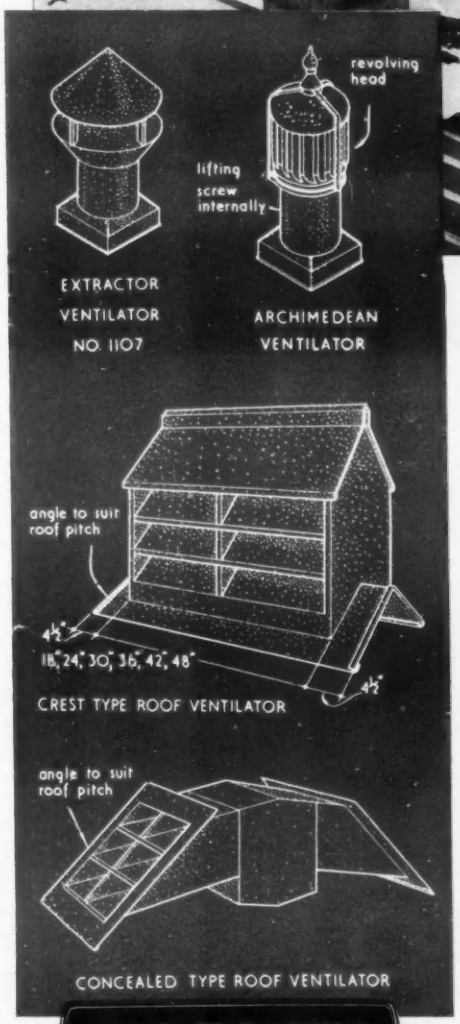

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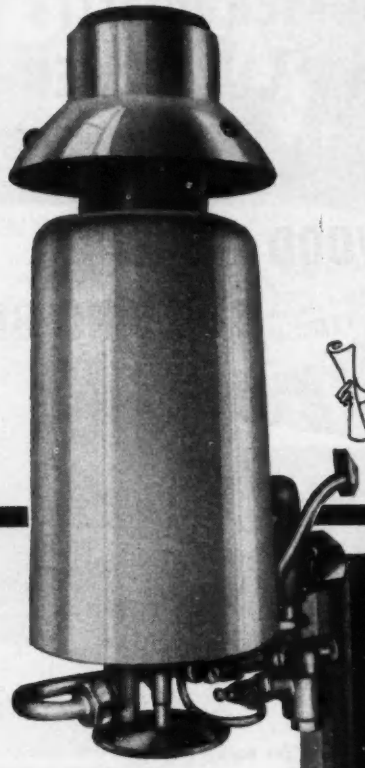

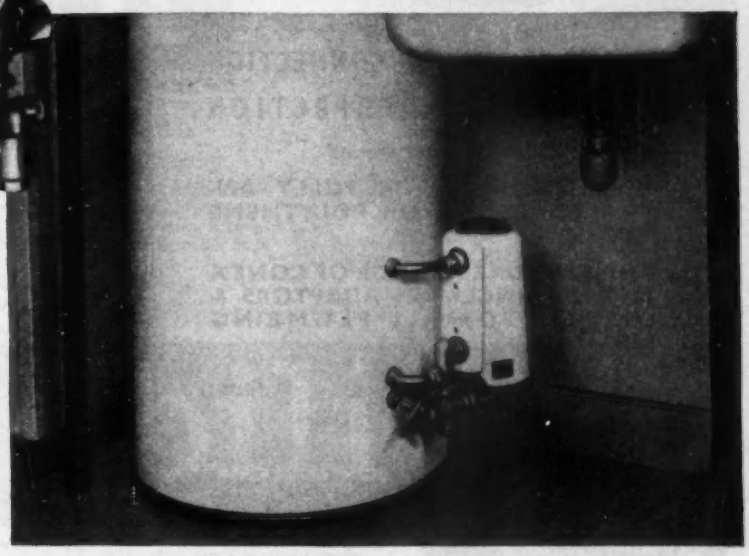

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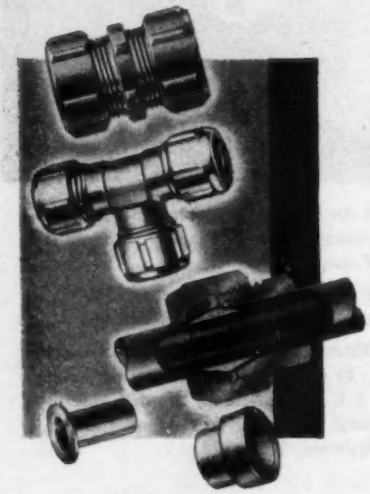

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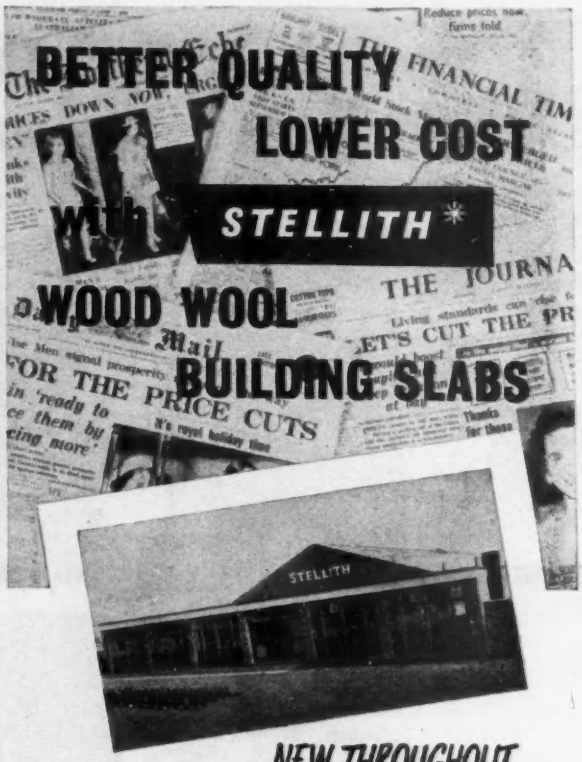

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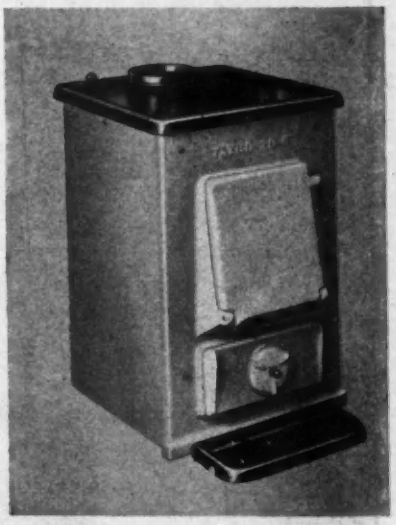

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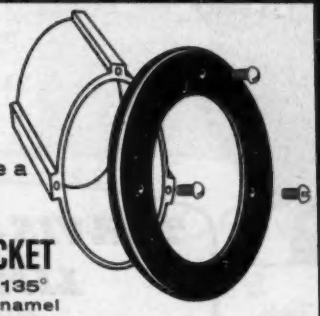

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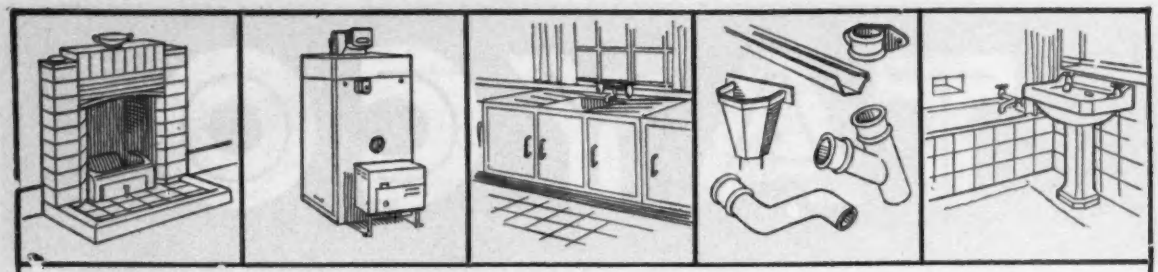

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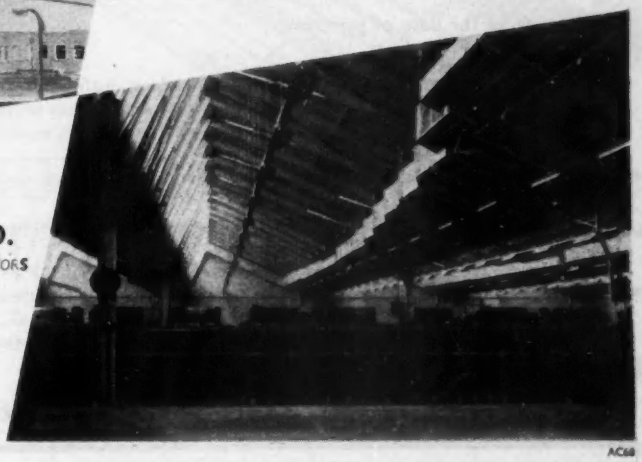

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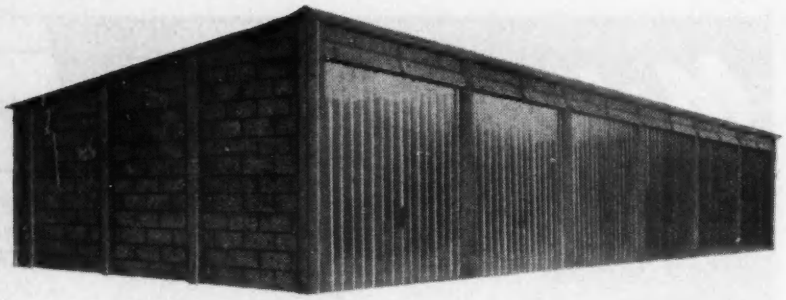

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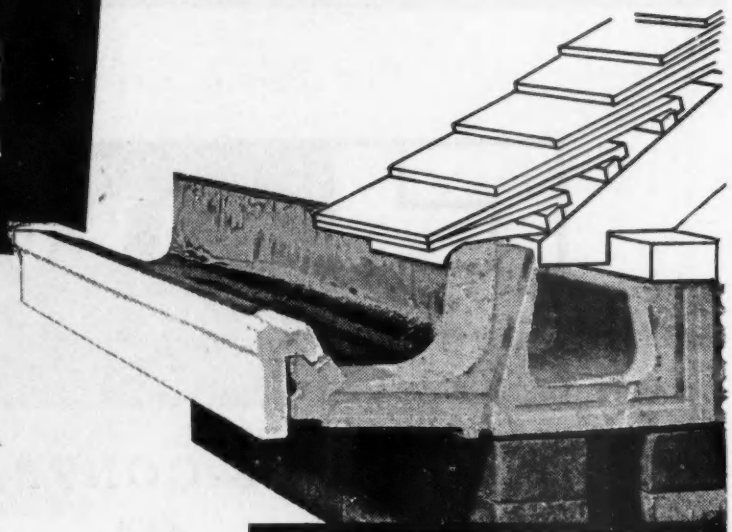

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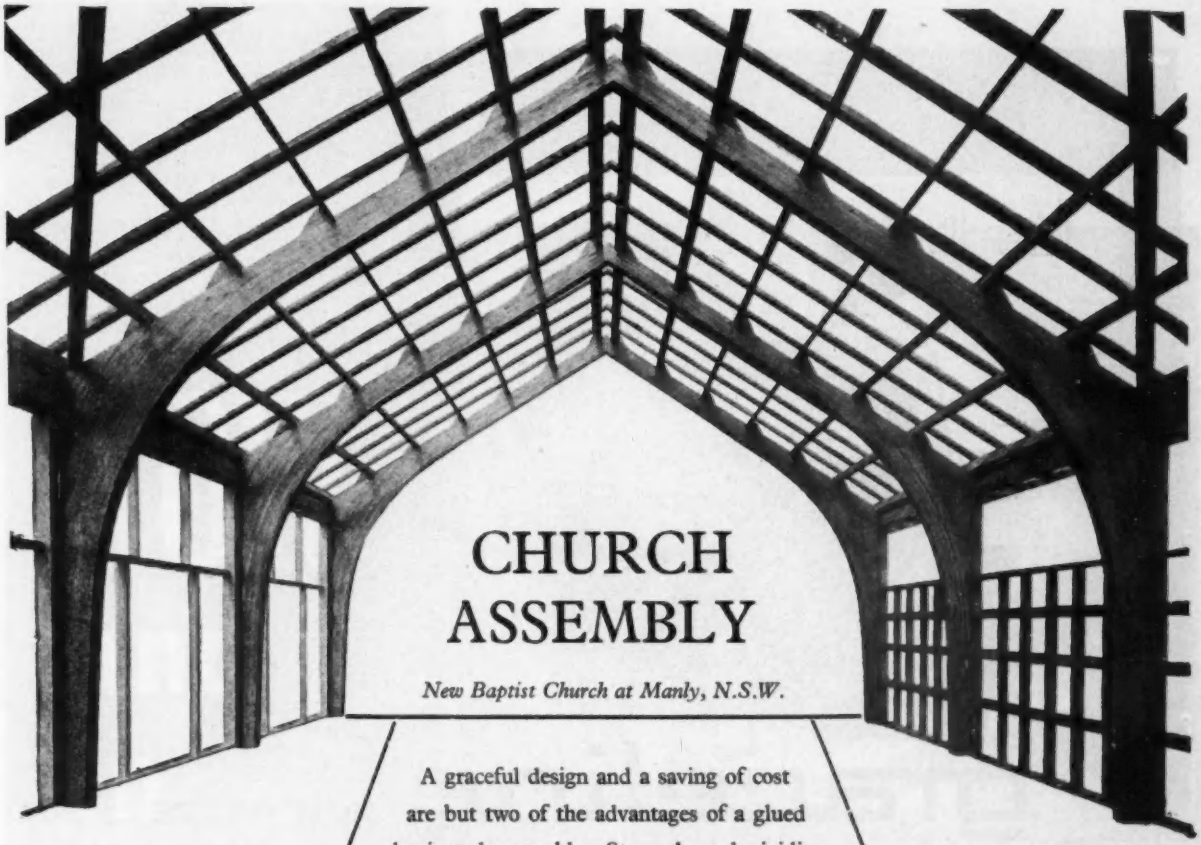

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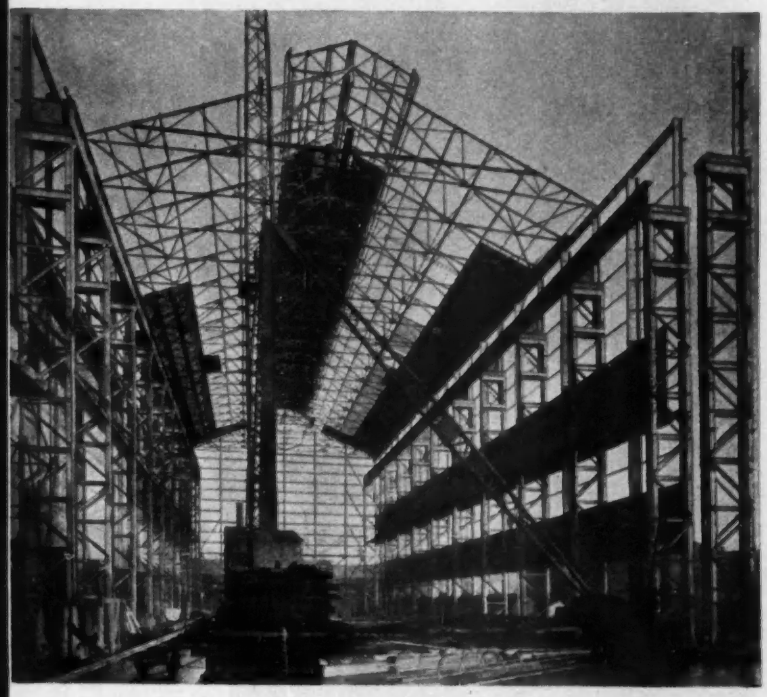

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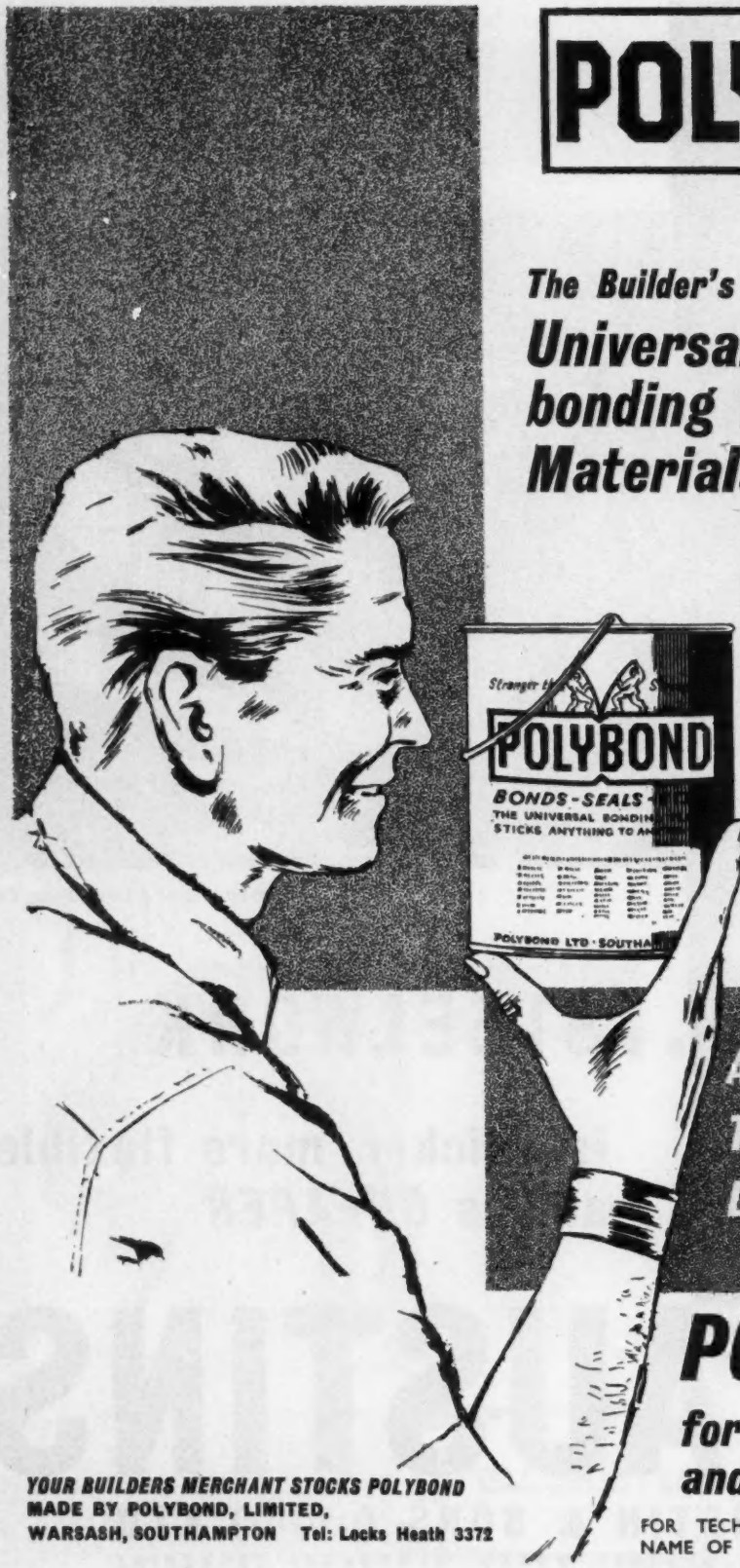

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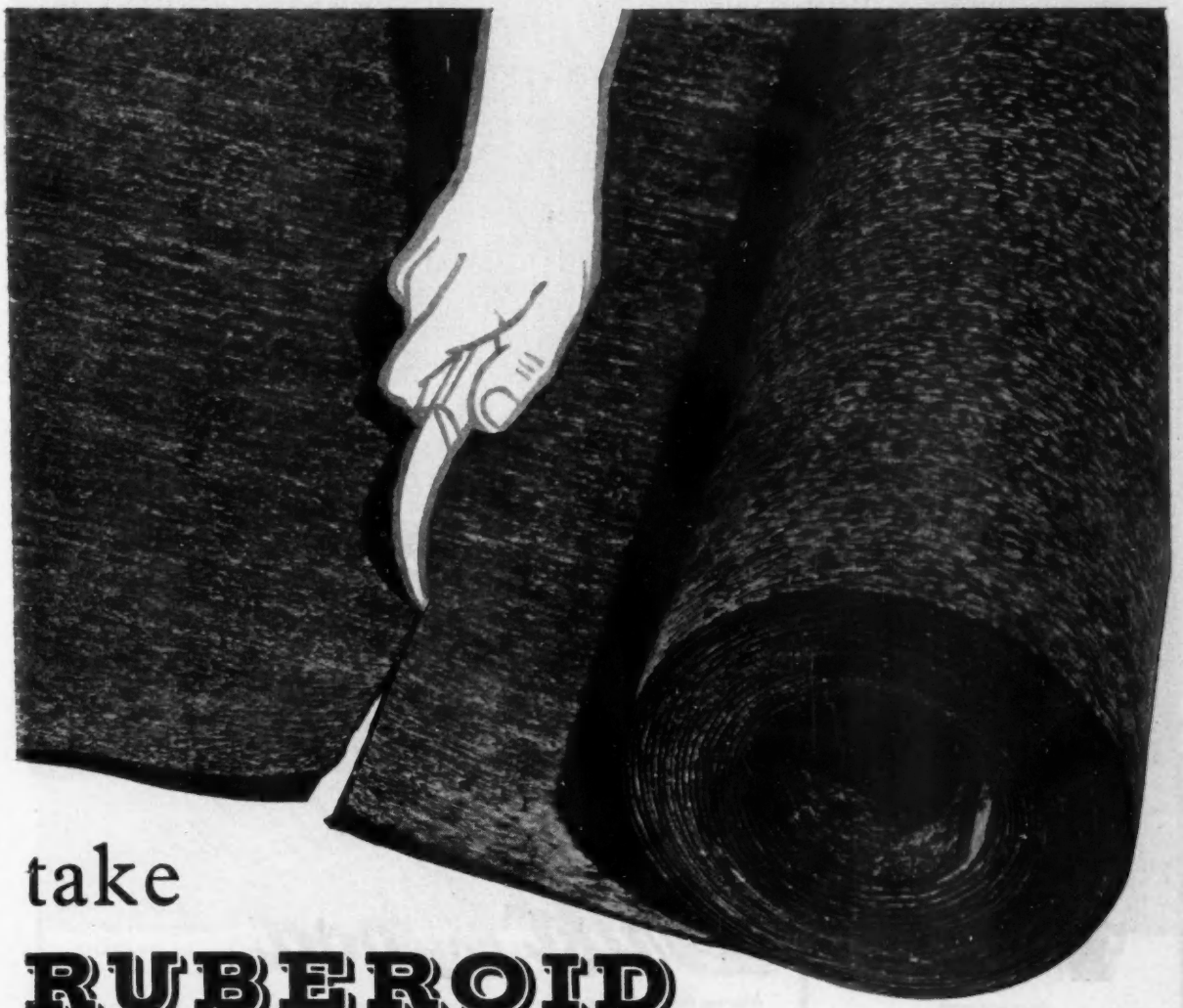

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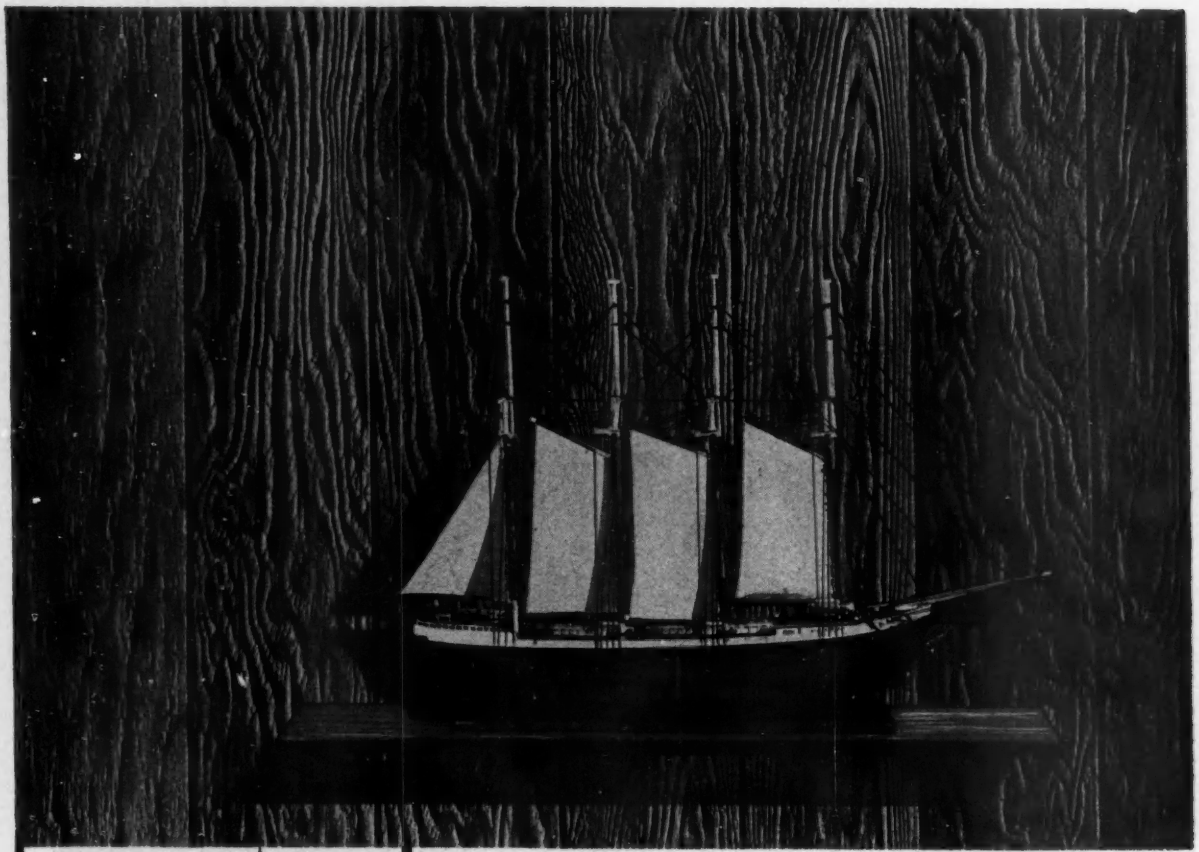

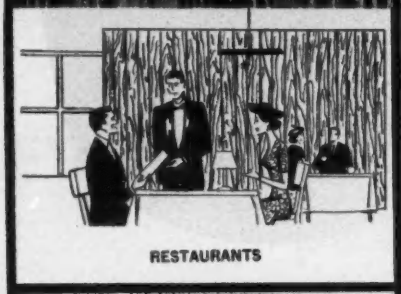

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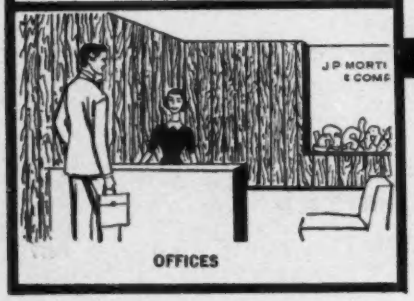

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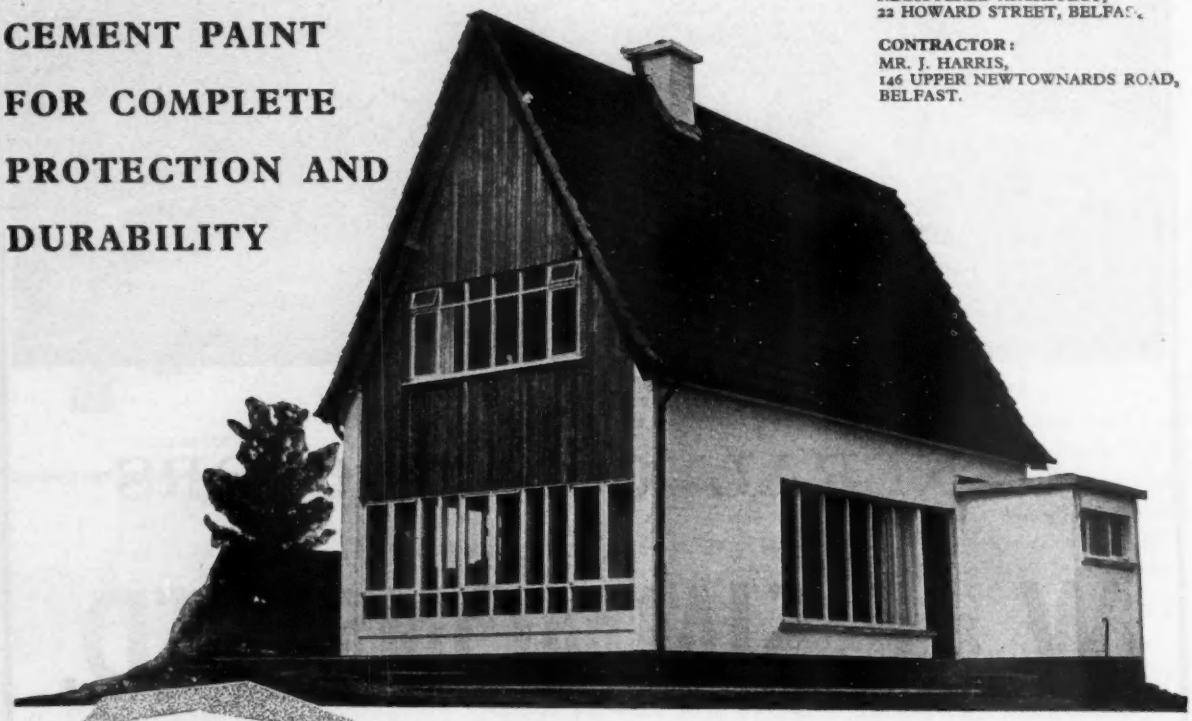

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News

Summary

732 *Professor Gordon Brown's views on architectural undergraduate education in the United States, where he has recently been engaged, are the subject of a special article.*

734 *Sir William Holford was nominated as the next President of the Royal Institute of British Architects.*

743 *Last weekend's conference of the Southern Counties Joint Consultative Committee of Architects, Quantity Surveyors and Builders, held at Oxford, is the subject of a report by a Special Correspondent.*

745 *'If more attention were paid to the wording of reports, many actions for professional negligence would be avoided,' Mr. C. A. Martin French told the RICS in a paper on 'Professional Negligence.'*

749 *Mr. Henry Brooke, MoHLG, told the Commons his reasons for rejecting the application by Birmingham Corporation for permission to develop 4,200 acres in the Wythall area for industry and housing.*

750 *The Court of Common Council approved a land exchange that will facilitate development around St. Paul's in harmony with Sir William Holford's proposals for the Cathedral.*

750 *Borough Council representatives and MoHLG officials are to discuss a proposal that councils should have more power to control the erection of garages in the curtilage of houses.*

751 *A development in the use of plastics foam to provide better insulation for cavity walling and roofing is described.*

'Late News' will be found overleaf, and 'News of the Week' on page 741.

Builder

INCORPORATING ARCHITECTURE & THE BRITISH ARCHITECT

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PRINCIPAL CONTENTS

ILLUSTRATIONS

PAGE

729 House at Weybridge, Surrey. By Hugh Smart

735 Recent Work of Pier Nervi, Royal Gold Medallist, 1960

736 New Dining Hall for St. Anne's College, Oxford. By Gerald Banks

740 A Bit of Vanished London: The Strand in 1893

ARTICLES

728 Letters to the Editor

732 Architectural Education: Undergraduate Courses in the USA

734 News from RIBA: Presidential and Council Nominations

742 Getting Rid of Clutter: Advertising Industry's Voluntary Code

743 Southern Counties JCC: Successful Conference at Oxford

745 Professional Negligence: Paper to RICS

750 Development Near St. Paul's: Land Exchange Approved

751 Better Insulation for Cavity Walling and Roofing

753 Obstacles to Original Design: Mr. P. Moro's Paper

763 Training Clerks of Works.

Building Technology

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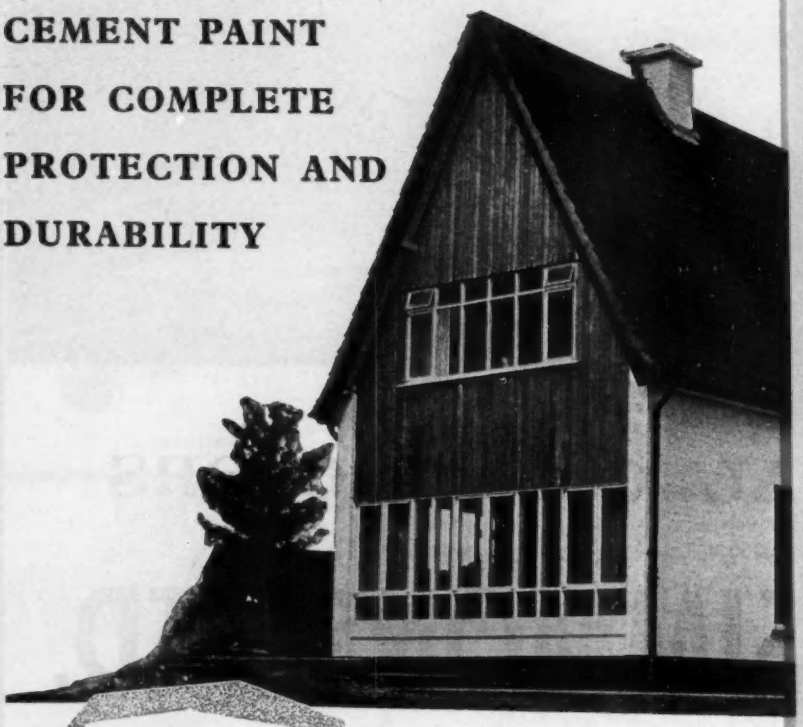

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Late News

Educational Building

THE SCHOOL BUILDING PROGRAMME for 1960-61 marks the beginning of five years' increased effort to improve the quality of primary and secondary education, states a circular (6/60) issued on April 14 by the Ministry of Education. Large building programmes are also in hand for technical education, for training of teachers and for other educational services.

The Minister asks all authorities concerned to review their arrangements, and to consider whether anything more can be done to streamline procedures and improve efficiency. In particular, he hopes that authorities will take full advantage of the longer notice now given of future building programmes to begin acquiring sites in good time, and to decide their architectural staffing (including where necessary the employment of private architects) well ahead.

For his part the Minister has decided to make the following changes:

(a) to follow compilation of the 1962-63 school building programme by settling on a provisional basis the main lines of the programme for 1963-64 and 1964-65;

(b) to speed up the final approval of plans and estimates of cost for new county and controlled schools, by introducing a system of certification that the main controls have been complied with;

(c) as part of (b) above, to introduce a unit formula for the calculation of premises grants on accommodation provided in new schools for the meals service;

(d) to simplify the procedures for certain minor projects.

The Minister has also reviewed the limits of costs for new schools, technical colleges and other educational buildings, and has decided that some easement is now required if authorities generally are to maintain a reasonable standard of building and avoid excessive future maintenance costs.

Cardiff Arts Building Contract

THE £254,000 tender of J. Gerrard & Sons, Ltd., of Manchester, has been accepted by the Council of the University College of South Wales and Monmouthshire for the erection of the first stage of the Arts Building at Cathays Park, Cardiff. The architects are Sir Percy Thomas & Son, and the quantity surveyors W. T. Hills & Co., both of Cardiff.

The Builder

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Building Technology

THE SHORT REPORT presented to the London County Council last week on the establishment of the proposed College of Architecture and Building emphasises its preliminary nature and the need for discussion and consultation at length. Most of us who read the 1957 report of the Study Group on the subject of the College, and have waited with high hopes that radically new educational ground would be broken cannot but feel a first sense of disappointment that the scheme has solidified into a redevelopment of an old friend—the Regent Street Poly. We must say at once that no disparagement is intended, but in a context of this kind, surely the Poly has too many historic burdens, too many ready-made answers, and too many interested and knowledgeable administrators to make the very clean break which seems necessary—and in the meanwhile existing courses must go on.

The early picture of a building industry on its toes to help initiate new standards of education all round in a glamorous, liberal 'Imperial-like' College may be difficult to sustain within the proposals now developing. This industrial participation must never be lost sight of, for the early suggestions visualised a framework whereby architects, structural engineers, builders and surveyors should have partly joint and partly parallel education with flexible transfer from one to another. This raises problems of entry standards, significantly 'A level' in the case of architecture and with science/mathematics content because of the link between structural techniques and building.

The new Institution is to contain three nearly 'independent' colleges by which engineering and science are separated from architecture and building technology. The traditional dichotomy is likely to continue in the new organisation, and unless the collaboration of all concerned is nearly perfect—this at best is unlikely—the major contribution of joint education which the College can make is in jeopardy. Every effort should be made, at least, to include structural engineering, with its structures and strength of materials laboratories within the College of Architecture and Building, for it is an alloy of architecture, structures and building technology which must become the foundations of the new building education. It is hoped, too, that room will be found for fairly comprehensive treatment of the subject of heating and ventilation. With these additions the College might be a significant whole which could provide facilities for post-graduate studies. This poses the question about the kinds of award which can be expected, and the kind of relationship which might develop between the new institution and the School of Architecture at London University which will be a near neighbour. As the University school is likely to undergo some changes under its new head, consultation and attempts at complementary functions would seem worth making.

Nomenclature is important and some preference is felt for the earlier title of 'College of Advanced Building Technology,' suggesting integration of effort in the building team. In making our comments we have referred indirectly to some of the principles which concerned the Study Group of the Building Advisory Committee of the London and Home Counties Regional Advisory Council in 1957. It has taken two years to reach this first major decision, during which all our points must have come into focus, but in the future discussions of many details we hope the LCC will not be deflected from an understanding of the major significance of the new College as a joint training centre for the whole industry. We hope it will not be too long before the new college building arises on its new site in Marylebone—a considerable design and construction responsibility, and one to be taken with awareness of the principles for which this most important and significant College must stand.

Notes of the Week

Sir William Holford Nominated PRIBA ; Dr. Nervi's Busy Week ; Edinburgh AA Year Book ; Expenditure on National Parks

SIR WILLIAM HOLFORD, who will be nominated to the forthcoming annual general meeting on May 3 as President of the Royal Institute of British Architects, is an architect whose influence in that field is not dependent upon the volume of work he has carried out, though his buildings are themselves far from negligible, as one might expect from a former Rome Scholar. But it is as a town-planner that he is best known, and it would be fair to say that on him has descended the mantle of his old mentor and former colleague, Sir Patrick Abercrombie. His share, with Charles Holden, in preparing the City of London plan, especially the proposals for the St. Paul's precinct, is well known; he is also consultant to the county of Cambridge. He has been Professor of Town Planning at University College, London, since 1948, and is a member of the Royal Fine Art Commission. He is 53, and was educated at the Diocesan College, Cape Town, and Liverpool School of Architecture.

* * *

IT WOULD BE TRUE to say that Holford sees architecture always against a planning and social background. Thus his forthright minority report (in which Professor Gordon Stephenson was joined) in the Toronto City Hall competition (see 'The Builder' of October 10, 1958). Since that time modifications have been made to redress some of the inflexible elements of Viljo Rewell's winning design, and certainly Holford's reputation as an assessor has only been enhanced thereby.

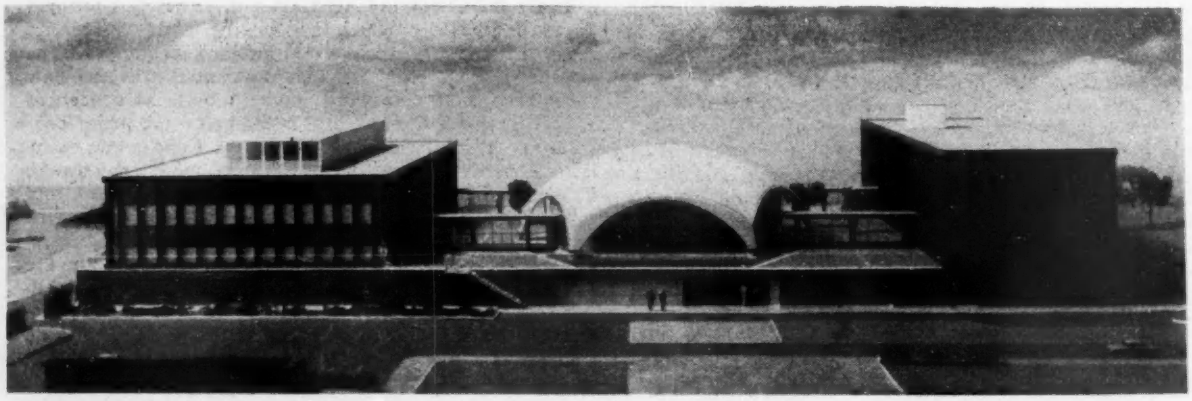
He will take over the presidency at a time when the winds of change are still ruffling the waters of the RIBA, and not only on the surface; and his Presidency may well be judged by posterity by his ability to bridge the not inconsiderable differences which at this moment exist between some of the elected members of Council and the representatives of the allied societies. This, and the setting of a more realistic course for architectural education, are the principal tasks ahead of the incoming President. If Sir William's nomination is confirmed, as undoubtedly it will be, we shall wish him every success in his difficult but challenging two years of office.

Dr. Nervi's Busy Week

LAST WEEK was a busy one for the new Royal Gold Medallist. Reference was made in our last issue to the presentation ceremony on April 5; this was followed the next day by a reception in his honour given by the President and Council of the RIBA and attended by a small but distinguished company (though less distinguished perhaps than it would otherwise have been by reason of ministerial absences due to other receptions and routs concerned with President de Gaulle's visit to London). Dr. Nervi appeared to enjoy the occasion, however, perhaps because he had already met many of the guests, and there was a pleasant air of informality in spite of the white ties prescribed for the men. An excellently mounted exhibition of some of the Medallist's work lent added interest, and the staff had some difficulty in persuading guests to leave a full hour after the official closing of the reception.

* * *

WITH A VIGOUR remarkable for his 68 years, Dr. Nervi saw through the greater part of the AA reception on the following day (April 7). He was one of over 700 members and guests who were received by the President, H. T. Cadbury Brown, and Mrs. Cadbury Brown, and afterwards took their pick of a splendid choice of entertainment. This varied from dancing to a Southern Jazz Band in the admirably decorated basement to viewing a collection of Victorian and



A model of the proposed Department of Natural Philosophy of Aberdeen University, which is one of several new buildings designed to meet the expanding needs of the University. The architects, Messrs. J. Douglass Mathews & Partners, of London, have designed the building to meet the requirements of a complex set of physical and vibration-free conditions which are required in the experimental area. The main Lecture Hall appears as a large concrete shell in the centre of the model, and this, together with the Teaching Block and the Academic Block, rest on a large plinth or podium, faced in coarse granite. Work is expected to start in the middle of this year and will be completed in two years' time. The quantity surveyors are John Dansken & Purdie, of Scotland; the reinforced concrete casing is designed by Cyril Blumfield & Partners, and the special heating and ventilating requirements are by G. H. Buckle & Partners

other toys arranged by Miss Y. Rose in the top floor studio. In between were to be found (at one time and place or another) puppetry, an exhibition of stitched ships, another of RCA students' printed fabrics, a fascinating entertainment by Leslie Daiken, 'The Magic of the Lantern,' and other things for eye or ear which included pleasant singing to the guitar by West Indian Tommy Eytle. And, as always, there was refreshment in plenty served by a staff, led by Louie and Gertie, which would make any party. 'One of the best ever' was a verdict with which few would disagree; the administrative staff and students who put much hard work into arrangements may well be satisfied.

Dr Nervi was visiting Liverpool over the week-end to speak (in Italian) to the Liverpool School of Architecture. He left for the Continent on Tuesday, but will be back in July to receive an honorary degree from Edinburgh University.

Edinburgh AA Year Book

A STRIKING FEATURE of the Year Book of the Edinburgh Architectural Association (No. 4, 1960, just issued) is the first full and fully illustrated account to be published of the proposals for the University of Edinburgh Central Development Area, which lies about half a mile south of Princes-street in a closely built-up part of the city, described as 'a conglomerate mass of all kinds of buildings from the past three centuries, historically based on a few medieval roads and one spacious square planned in Georgian times. In its heart the three massive main buildings of the old University are the principal landmarks.' With the aid of numerous plans, an air view of George-square and photographs of models the article gives a factual, descriptive and non-controversial account of these proposals which will be studied with great interest, especially those relating to George-square, which have aroused a good deal of discussion in Edinburgh. The master plan for the area is by Messrs. Basil Spence and Partners, who have also designed some of the proposed new buildings, others being by Mr. Walter N. W. Ramsay ARIBA (the new medical buildings) and Messrs. Robert Matthew and Johnson-Marshall (the Arts Faculty group).

* * *

MR. GEORGE H. LAWRENCE, the President, contributes an introduction to the Year Book and there are messages from Mr. Basil Spence, PRIBA, and Mr. James Mottram, President of the RIAS. Other features include a list of office-bearers and Council, the President's Report for the session 1959-60, committee reports, a list of architectural firms practising within the Chapter area, a list of official departments and local authority offices and the names and addresses of chartered surveyors in practice in and around the Chapter area. A feature of nostalgic, and in some of its judgments surprisingly topical interest is the address (condensed from a report in 'The Builder') given to the Edinburgh AA in 1899 by the President of that year, James Bruce, who though a lawyer and not an architect, appears to have been a shrewd observer of the architectural scene. Congratulations to the Editors, Robert Morton and James Dunbar-Nasmith, on a production of first-rate value and interest.

Expenditure on National Parks

IN THEIR report and summary, the National Parks Commission say that the concept of National Parks, until ten years ago an untried experiment in this country, has now found general acceptance as a recognised part of our national life. 'But,' it adds, 'there can be no doubt that the total amount of money spent on our work has been absurdly small. Over the last ten years, less than one penny per person per year has been spent in connection with National Parks. 'We do not believe that the public would be reluctant to spend, say, sixpence per person per year for the preservation of our national heritage in the countryside.'

The Commission wishes, for example, that those responsible for providing electricity were less reluctant to spend the extra cost of undergrounding some distribution lines to rural consumers. 'Such requests as are made,' it says, 'are extremely modest, and the cost very small, when regard is had to the £500m. spent annually by the 15m. consumers of electricity.'

The report makes the point that even if, as the Commission hopes, amending legislation is introduced and additional grants are made available from central funds, it will still be necessary for an increasing interest and concern for National Parks and the beauty of the countryside to be shown both in and out of Parliament, if the fundamental purpose of preserving and enhancing their natural beauty is to be fulfilled. 'The future of the National Parks,' the Commission says, 'must depend, in large measure, on an informed and sympathetic public, eager to use them for open-air recreation, and alert to safeguard them from unseemly encroachment.'

* * *

THE COMMISSION views with considerable concern the damaging effect on the character of some of the best-loved landscapes in National Parks which would be caused by the widespread substitution of conifers for hardwood trees under extensive private afforestation schemes, the number of which appears to the Commission to be rapidly increasing. It accordingly proposes to enter into discussion with the Forestry Commission and with the Ministry of Housing and Local Government, to see whether a comprehensive solution to this problem can be found. The report is published (price 6s.) by HMSO.

Sir William Holford, nominated President, RIBA (see first Note)

'An Evening of Divertissements'

AS PART of the British Architects' Appeal for World Refugee Year, an 'Evening of Divertissements' is being organised for April 28 at the Royal Institute of British Architects at which, as the name suggests, all manner of amusements are being offered to guests.

The highspots of the evening will be the four cabarets in the champagne-night-club. Many artistes have agreed to appear (without any fee), and among those so far named are the quartet of entertainers Jonathan Miller, Dudley Moore, Peter Cook and Alan Bennett, the mime and drum dancers Lotte and Ernest Berk, the singing entertainer Pamela Manson, and the cast from Charles Ross's current revue 'Look Who's Here' at the Fortune Theatre. 'Britain's most popular star' (name not divulged) has provisionally agreed to head the bill.

Three dance bands will take turns to play in the large hall: the Temperance Seven, Dick Williams' band, and Johnnie Bassett's Big Band, which on this particular evening will be accompanied by Johnnie Dankworth. Films to be shown (lent by the British Film Institute) include some witty, colourful froth by Canadian experimenter Norman Macharen, a presentation of Sandy Calder's delightful mobiles and, by way of contrast, old Chinese folk-dancing. Also during the evening some 40 paintings and sculptures are to be raffled.

Tickets, price £2 2s. each, including buffet, may be obtained from the Hon. Organising Secretary, WRYBAA, 66 Portland-place, London, W1. This is a good cause which deserves the fullest support of architects and their friends, and the organisers are hoping for generous support.

Poet's Corner

A bit of disinterested advice to readers for the Easter holiday. With acknowledgments to the tuneful composition of Mr. Irving Berlin.

Banish that obsession
With business or profession,
Relax, or take possession
Of some clubs (or a spade!)
The highway? Go not on it,
With cars all jammed upon it,
Or crawling boot to bonnet
At the Easter Parade!

ANON.

Letters to the Editor

Billing Mechanised?; Permanent Employment of Operatives

'Billing Mechanised?'

SIR,—The letter by Mr. A. J. Willis published in your issue of March 25, poses the question of how many firms of quantity surveyors have a turnover of £3m. worth of building work per year. Mr. Willis then proceeds in his last paragraph to answer the question for himself in order, no doubt, to make the suggestion that space has been wasted by the publishing of 'Billing Mechanised?' in your issue of March 18.

He also states that the article represents 'scientific achievement'; whereas it does not represent this at all! What it does set out to represent are some results, with reasonably detailed information, of a preliminary investigation into the advantages and disadvantages of using some quite conventional office machinery in quantity surveying practice. The object of any investigation is to gain knowledge; the results of an investigation may be positive, negative or speculative; the question of seeking publication of results and the amount of space taken up in explaining them, depends on the demand for the information. Since many quantity surveyors are interested in whether or not the use of punched card machinery is, or is likely to be a proposition, it was thought worthwhile writing a paper illustrating the information we have so far acquired.

Mr. Willis has taken the turnover figure of £3m. as being something upon which the whole question of using punched card machinery depends, whereas it is merely a figure considered convenient for illustrating the economic implications of a complete installation. Had he finished reading the article he would have read in paragraph 2 of the summary that the renting of 'time' on machines in processing bureaux (located in most commercial centres), is suggested as a possibility for firms with turnovers of less than £3m. worth of building work per annum.

D. G. BRAINE [ARICS],
The War Office W(QS),
Chessington, Surrey.

'The Minister expresses the hope that those responsible for the planning of Youth Clubs will go as far as they reasonably can towards meeting the wishes of their potential customers!'

Permanent Employment of Operatives

SIR,—I was gratified to see that Sir Richard Coppock and Mr. E. L. Jones, speaking for organised labour, had come in ('The Builder' of April 1) to comment on the letter I sent you in reply to your previous correspondents who urged the need for some attempt to provide permanent employment for building trades operatives. But do their contributions bring us any nearer to it?

Sir Richard sees 'no insurmountable obstacle to the attainment of our objective,' namely, permanent employment. As a general thesis everybody would agree with that statement. But surely it is merely begging the question to say, as Sir Richard goes on to say, that where there's a will there's a way. There was a way to the top of Mount Everest, but for long years there were 'insurmountable obstacles' on the way to that way. Having gone so far will Sir Richard now go the necessary step further and pinpoint the way? Or does he think that the difficulty of finding a satisfactory method of grading, if that comes into it, is still 'insuperable'?

Mr. Jones has an easy solution to the problem — nationalise the building industry. But apart altogether from the question whether in the national interest this would be either desirable or practicable, how does it affect this particular problem? Is the State, that is the taxpayer, to keep men in idleness between the time they end one job and an all-powerful omniscient Government Department finds them another?

D. C. BURGESS [FIOB],
34 Grosvenor-gardens, SW1.

Competitions Open

* *The date in italics refers to the issue of* The Builder *in which fuller details appeared.*

MEDICAL TEACHING CENTRE, CARDIFF.—Competition arranged by the Board of Governors of the United Cardiff Hospitals and the Welsh National School of Medicine for architects resident in Great Britain, Northern Ireland and Eire to submit designs for a proposed medical teaching centre in Cardiff. Assessors are: Sir Percy Thomas, P-PRIBA; F. R. S. Yorke, FRIBA; J. H. Forshaw, CB, FRIBA, Provost A. Trevor Jones, MD, and Dr. A. R. Culley, CBE, MD. Premiums of £5,000 (to be merged with the fee), £3,000 and £2,000 are offered. Conditions from Mr. D. G. Morgan, secretary to the board of governors, United Cardiff Hospitals, Cardiff Royal Infirmary, Newport-road, Cardiff, to whom designs must be sent in by April 30, 1960. *March 27.*

OFFICES, DUBLIN.—Two stage competition limited to Irish architects for offices for Irish Sugar Co. Ltd., Dublin. Messrs. Raymond McGrath, E. D. Buckley and Alan Hope, FF/RIAI assessors, with Lt.-Gen. M. J. Costello. Premiums: £350 for each of six architects admitted to final stage; £1,000 to winner. Stage I designs to Secretary, Irish Sugar Co. Ltd. by May 3; final designs by August 31; competitors' questions by March 15. Conditions, etc., from Secretary at 7 Clare-st., Dublin, on deposit of £5. *Feb. 19.*

DUMBARTON CENTRAL AREA DEVELOPMENT.—Architectural competition promoted by the Town Council of the Royal Burgh of Dumbarton for the design and layout of buildings to be erected as a connected piece of development in the centre of the Burgh together with the design of a new road bridge over the River Leven. The competition is open to registered architects resident in the United Kingdom. The assessor is Professor Robert H. Matthew, CBE, FRIBA, and premiums of £1,200, £900 and £500 are offered for designs placed first, second and third respectively. Last day for submitting designs is May 30, 1960; for questions March 7. Conditions from the Town Clerk (Architectural Competition), Municipal-bldgs., Dumbarton. Dep. £2 2s. *Feb. 26.*

DUNBARTONSHIRE COUNCIL OFFICES.—Two-stage competition open to architects practising or resident in Great Britain or Northern Ireland for County Council Offices at Crosslet, Dumbarton. Assessors: Messrs. F. R. Wylie, J. H. Napper and James Mottram. Premiums: £400 to each of six architects selected from first stage to take part in final. £1,500 additionally to winner. Conditions on deposit of £2 2s. from County Clerk, County-bldgs., Dumbarton, to whom first stage designs by July 16. Final designs by October 29. *Feb. 26.*

CATHEDRAL, LIVERPOOL. — Competition arranged by the Liverpool Metropolitan Cathedral Committee for architects who are British subjects, Commonwealth citizens or citizens of Eire to submit designs for a new Metropolitan Cathedral of Christ the King at Brownlow Hill, Liverpool. Cost £1 million. Assessors: The Most Reverend J. C. Heenan, DD, Archbishop of Liverpool; Mr. Basil Spence, OBE, ARA, PRIBA; and Mr. David Stokes, FRIBA. Premiums: £5,000; £3,000; £2,000. Last day for submitting designs: August 3, 1960. For questions; Dec. 15 last. Conditions from the Competition Secretary, Liverpool Metropolitan Cathedral Committee, 153 Brownlow Hill, Liverpool, 3. Dep. £2 2s. *September 25.*

HOSPITAL AT BOSTON, LINCS.—Two-stage competition open to architects resident in the UK and Eire for a general hospital comprising 474 beds and all ancillary departments. Assessor: Mr. John Murray Easton, FRIBA. Premiums: £500 to each of six architects selected from first stage to take part in final. £1,500 additionally to winner. Conditions on deposit of £2 2s. from the Secretary, Sheffield Regional Hospital Board, Fulwood House, Old Fulwood-rd., Sheffield, 10, to whom first stage designs by September 30. Final designs four months from date of instructions to proceed. Last date for questions is May 16. *March 18.*

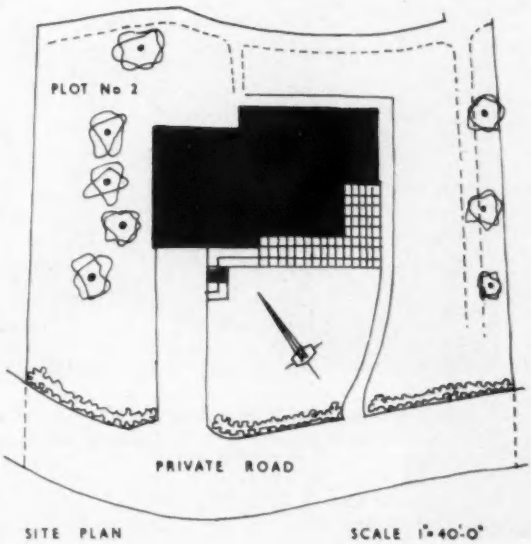
REPLANNING OF TUNIS.—International competition for the development of the town of Tunis. Registration date was February 1 and the final closing date for the receipt of entries is in October. The assessors are: The Secretary of State; the Chief Engineer of Bridges and Roads; the Chief Engineer of Technical Services; M. Plinio Marconi (Rome), M. Antonio Perpina (Spain) and M. Pierre Vago (Paris). Mr. E. Maxwell Fry, FRIBA (London), and Hr. W. Hebebrand (Hamburg) are alternate assessors. Premiums of 5,000, 2,500, 1,500 and two of 500 dinars are offered. *December 4.*

NEATH CIVIC BUILDINGS.—Competition open to architects on ARCUK register for new civic buildings at Fairfield, Neath, for Neath BC and RDC. Sir Percy Thomas, assessor. Premiums of £1,000, £500 and £300 offered. *Feb. 19.*

House in Weybridge, Surrey

HUGH SMART, ARIBA, architect
W. & E. SIMMONS, LTD., general contractors

South elevation, with garage at lower ground and main entrance at upper ground level

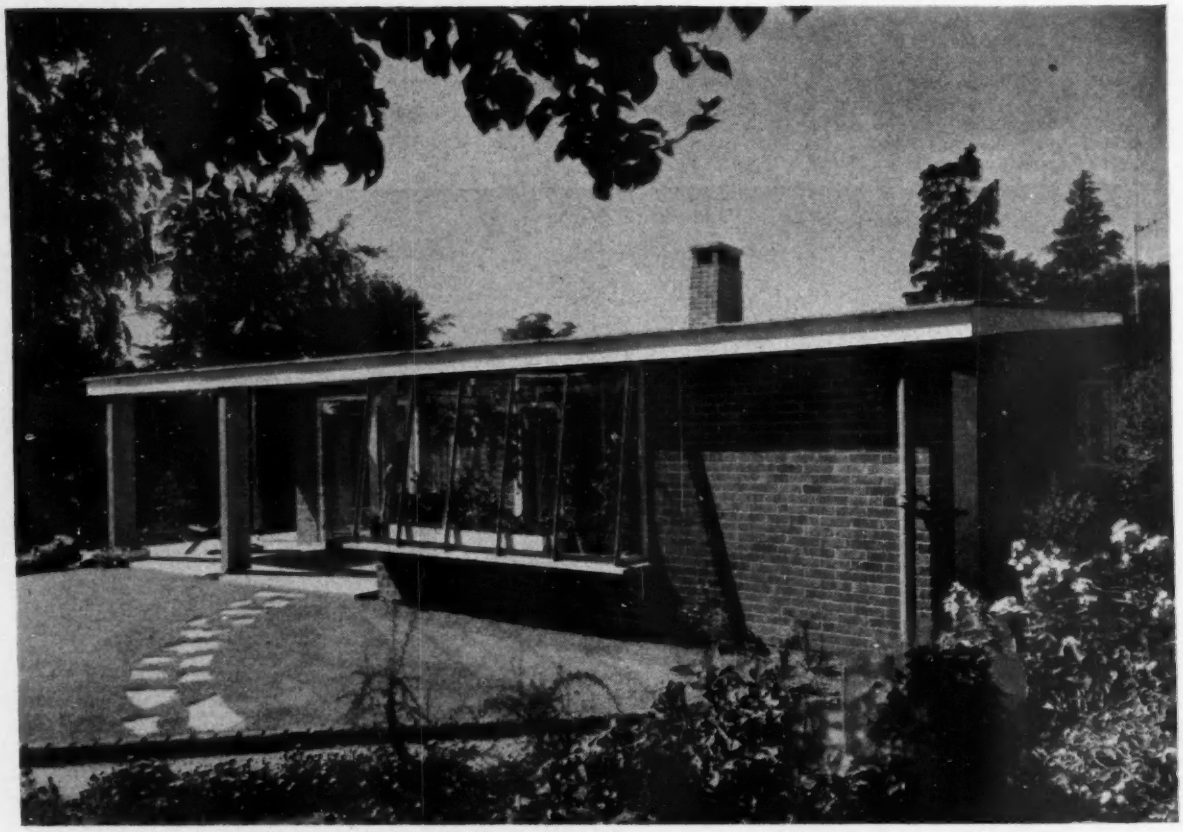


SITE PLAN SCALE 1"=40'-0"

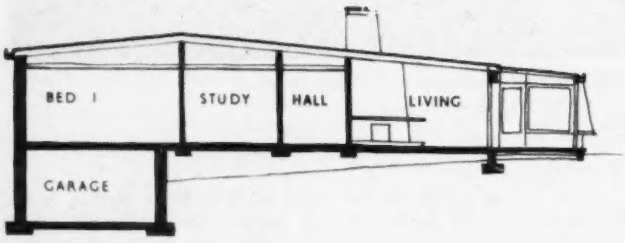
THE SITE, situated on the fringe of Weybridge Heath, is one of three plots, each fronting on to a private road, which were originally part of the grounds of a large house. The land rises fairly steeply from the road, providing a fine view over distant trees and woodlands to the south and west. It was decided to maintain the general contours of the site and to place the house where least damage would result to the already mature fruit trees and other natural features. The house was designed for a company director and his wife who required an entirely labour-saving accommodation and easy access to the garden.

The plan consists of a large combined living and dining room, study, main bedroom, guestroom, kitchen, bathroom, conservatory, verandah terrace and garage-workshop. To obtain the greatest benefit from the south-western aspect the open living area was planned across the site, at right angles to the general contours, with the verandah running on two sides of the house. The garage is situated under the bedroom wing, and access from the short driveway to the front entrance is by a flight of steps terraced in random York stone.

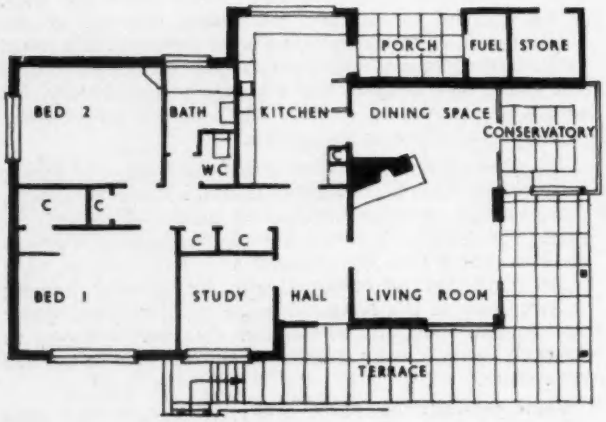
Walls generally are 11-in. cavity, comprising two skins



Conservatory and verandah terrace, east elevation. The low pitch roof has concealed gutters behind the fascias



LONG SECTION



GROUND FLOOR PLAN
SCALE: 1 in. = 16 ft.

Lounge fireplace, with dining area and conservatory beyond. Ceilings are wood wool slabs on exposed rafters

House in Weybridge, Surrey

of 4¼-in. insulating blocks, cement rendered externally with a Tyrolean finish. Elsewhere, brick facings are in hand-made multi red-purple stocks. Roofing is three layer built up felt finished with limestone chippings, on screeded 2-in. woodwool slabs to a low pitch, incorporating concealed gutters. Flooring is ¾-in. mahogany wood blocks in the living room and study, ¾-in. deal t. and g. boarding in the hall and bedrooms, laid directly to battens set in screed, and 3.2 mm. linoleum tiles in the kitchen and ancillary rooms. All windows, with the exception of the 'Allday' sliding glass windows, are double glazed with 'Plyglass.' Internal doors are flush ply, mahogany veneered, finished with Bourneseal and wax polished. The chimney breast is finished with fair faced multi golden hand-made bricks with a wrap-round mantelpiece in mahogany and polished Westmorland stone hearth.

Heating is provided by a Radiation gas fired ducted air installation, the furnace unit being installed in the kitchen. Domestic hot water is obtained from an Ascot Multi Point heater in the bathroom. This provides a compact hot water system with very short runs to all fittings.

The overall cost, including garage, terrace, and stone retaining wall, was £4 10s. per sq. ft.

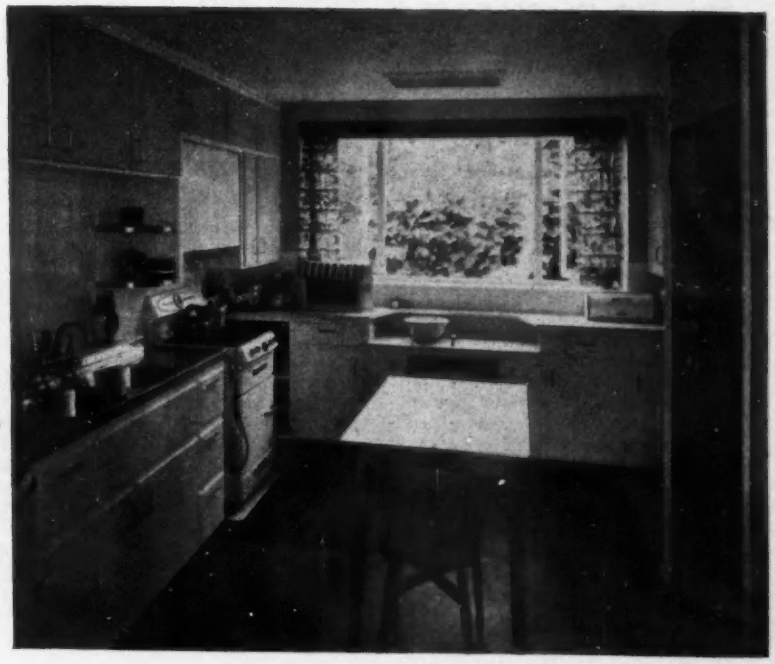
Photos are by Colin Westwood.

Sub-contractors and Suppliers:

Built up felt roofing: Permanite Ltd.; *sanitary goods:* Kirby Bros Ltd.; *Radiation duct air heating unit installed by* Broad & Co. Ltd.; *Ascot multi point heater and gas installation by* South Eastern Gas Board; *ironmongery:* Alfred G. Roberts Ltd.; *electrical installation:* T. W. Brightwell; *flooring contractor:* Burtain Ltd.; *Multi Golden facing bricks used internally:* Richard Parton Ltd.; *facing bricks externally:* H. J. Greenham Ltd.; *double glazing units:* 'Plyglass'; *sliding window:* P. G. Allday & Co.; *Baxi fire:* Richard Baxendale & Sons Ltd.; *rain water pipes:* 'Vitreflex,' J. & R. Griffiths Ltd.

The living room has Allday sliding windows and french windows opening on to the verandah terrace

Neat arrangement of fitments in the breakfast kitchen



Architectural Education

Undergraduate Courses in the United States

BY R. GORDON BROWN, MA(EDIN.), AADIPL., FRIBA

Professor Gordon Brown, formerly Head of the School of Architecture in the University of Hong Kong, has recently returned to England from the United States where he has been engaged in the replanning of Salt Lake City and teaching in the University of California faculty of architecture, at Berkeley. We have asked him to set down his views on architectural education at undergraduate level in the United States.—Editor.

THIS SHORT ARTICLE attempts to give a characteristic rather than a comprehensive view of undergraduate schools of architecture in the United States. The American schools are spread across a continent and serve communities in very different stages of social and economic development. Set in different physical and climatic conditions, separated by great distances, they have a degree of variety and freedom which is unknown in any one country in Europe.

The Pattern of USA Education

The pattern of architectural education in the United States is as follows:

Stage 1. This is undertaken by the great majority of architectural students and consists of a five- or six-year course leading to the degree of BArch.

Stage 2. Is a post-graduate course, leading to the degree of Master of Architecture. It is undertaken by the better graduates from Stage I. Normally the course is of twelve months to two academic years' duration.

Stage 3. This stage consists of three years of post-graduate experience in the office of a Licensed Architect and is compulsory for all graduates who wish to become Licensed Architects.

Stage 4. This final stage requires the passing of the State Board Examinations. These are compulsory for all who wish to become Licensed Architects. The examinations are comprehensive and no exemptions are given, in any subjects, to graduates of the undergraduate or post-graduate schools. The subjects include Design and History as well as the normal range of technical and professional subjects required in Britain. The Design Examinations consist of two sketch projects carried out in periods of six and eight hours, no evidence of school work being considered by the State Board Examiners in regard to Design. The passing of the State Board Examinations in one state does not entitle a Licensed Architect to hold that title in other states, although the privilege is not unreasonably withheld when a request is submitted with evidence of satisfactory work already completed by the applicant.

The most fundamental difference between British and American policy is the complete separation of examinations leading to academic degrees from those leading to the title of Licensed Architect. It is from this American policy that much of the freedom and experiment in architectural schools in the United States is derived.

Advantages of American System

If the American system were applied in Britain, all aspirants to the Associateship of the RIBA and to the title of Registered Architect would be required to take the RIBA External Examination after a period of office experience, regardless of whether they had a university degree or not. Under these circumstances the close supervision exercised by the RIBA over 'Recognised' schools in Britain would almost certainly be relaxed. RIBA policies regarding ARCUK would not need to impinge on school policies. Registration would no longer depend, in any way, on school examinations. Educational policies and methods would gain vitality in this new freedom. The obvious disadvantages of the American 'design' examinations could be overcome by the submission of portfolios of work or testimonies of study.

The accrediting committee of the American Institute of Architects (AIA) is charged with the responsibility of according recognition to certain architectural schools and the title of 'Accredited School' is conferred as a result of its recommendations. The committee is interested mainly in the educational policy of a school applying for accredited status. The AIA attaches far less importance to the demonstration of results than does the RIBA. For example, the AIA does not require that students in the accredited schools keep portfolios containing their completed work. Only the best drawings are retained by the schools. Comprehensive examinations, such as those held at the Final and Intermediate stages in Britain, are unknown in the vast majority of American schools of architecture. The student receives his degree if he maintains a satisfactory grade average in tests and studio work.

And Some Disadvantages

One of the disadvantages of the American emphasis on freedom of policy is that the undergraduate schools are free to omit or minimise the importance of almost any subject. These schools assume that such omissions can be rectified during the post-graduate stage or in the period of office experience, although there is no co-ordination which ensures that this is the case. In particular, the undergraduate schools neglect instruction in many of the practical aspects of an architect's work.

Another disadvantage of American architectural education is the excessive length of time devoted to the process. This is eleven years, if the post-graduate degree is to be obtained, and it seems too long to wait between entering a school of architecture and becoming entitled to hang out a shingle. The period of eleven years may be extended to thirteen years in the case of those who are obliged to undertake military service. The problem is not only one of expense but, more important, the effect of this long period of academic work on the ardent and creative minds of the students. Although the omission of post-graduate work may shorten the period, the Master's degree is a recognised advantage to those who seek the better positions in offices or who wish to hold a teaching appointment.

Reducing Student Intake

Many schools of architecture in the United States are obliged to accept more students than they would desire, and also to accept a standard of entry which is not completely to their liking. The schools rapidly reduce these large intakes. In one school, in which this matter was investigated, it was found that only one out of every four entrants reached the final year. Some educationists will favour the American system over one which sets high standards of entry, based almost entirely on the students' record in pre-university education. School work is often only remotely related to the basic creative and practical qualities which are required in an architect and school results are not a reliable test of aptitude for architecture.

Planning at Undergraduate Level

In planning the course at the undergraduate level, the universities and the heads of architectural schools are influenced by certain problems which are particularly American and include the following:

1. The failure, on the part of most American high schools, to prepare students for entry to degree courses. A considerable amount of work is usually required to bring students up to this level, after they enter the university.

2. It is an American tradition that a student, at high school or university, should have the opportunity to plan his own course of studies to some extent. The schools of architecture, therefore, offer freedom of choice in a wide range of subjects not strictly of basic importance as undergraduate work in architecture. Such courses are referred to as 'electives' and may be offered by the school of architecture or by other departments of the university. They may include anthropology, psychology, philosophy, sociology, economics, languages and

fine arts. It is not uncommon for a student to be studying more than one elective and to devote twelve hours a week to lectures and preparation related to these subjects. Such demands may continue for several years and make considerable reductions in the time available for more specifically architectural work.

3. It is customary for most students to spend a part of their time in doing a wage-earning job. The time devoted to this is often between fifteen and twenty hours a week, much of it being found at weekends or in the evenings. A morning which is free of lectures, during the week, will almost certainly be used to do wage-earning work. This is possible under the American system of paying an hourly wage for office work. The schools do not object to it.

The Production of Design

The American schools of architecture are devoted to the production of design. The word is not used to indicate what is meant by design in Britain, where it is assumed that design involves practical, as well as what the Americans call 'conceptual' aspects of the architect's work. The heads of offices, as well as the heads of schools, are agreed with remarkable unanimity that most of the practical knowledge can be picked up in offices after graduation. A leading American architect recently stated that 'the function of the schools is to produce conceptual designers.' He went on to say that, as they only produced very few of these, the schools might be said to fail in their objectives. However, in practice, he found that the graduates who were not conceptual designers were very useful in his office, where they were able to develop projects with sensitivity and understanding. He stated that the real failure of the schools was that they did not produce architectural statesmen. Asked about practical work in the schools, he stated that this was not very important and could be left to the period of compulsory office training.

Investigation in two accredited schools, one in a state university and one in an independent university, showed that in no part of these schools was a major design project taken to the working drawing stage in the academic year 1958-1959. One of the schools offered a course in building construction, the other did not. Where no course was offered, it was assumed that the subject was covered by the lectures on structure and on materials. A check showed that this was not the case. A test was then carried out in which it was shown that no student in the fifth year of one of the schools concerned could detail all of the following: an external door, a wooden cupboard and a balcony railing.

Other notable omissions in both these schools were courses on Colour and on Landscape.

Long Projects 'a Waste of Time'

The range of design projects is almost the same as that found in the recognised schools in Britain. They are of short duration, usually of five or six weeks at the most. It is repeatedly stated in the American schools that longer projects are a waste of time, as the students tend to lose interest. Experiments showed that where longer subjects were attempted and properly programmed, so that student work had to be presented for criticism in various stages of development, the American student was no more prone to boredom than his European counterpart. The reason for the neglect of the practical work, the omission of Landscape and Colour and the rather superficial development of the design projects is that the American courses, at the undergraduate level, are too heavily loaded with non-architectural studies. Investigation shows that the study of electives such as anthropology and psychology, involving a one-year course (often the first year of a three-year course in another department), does little more than acquaint the students with the terminology of the subject. In no way does it become a tool. The real problem with the electives is whether they are worth the sacrifices which are being made in order to include them in the course. Electives being studied by a group of thirteen fifth-year students included Russian history, Spanish language, pottery and the making of woodcuts. This was the year in which no student could detail a door, a cupboard and a balcony railing.

Method of Awarding Grades

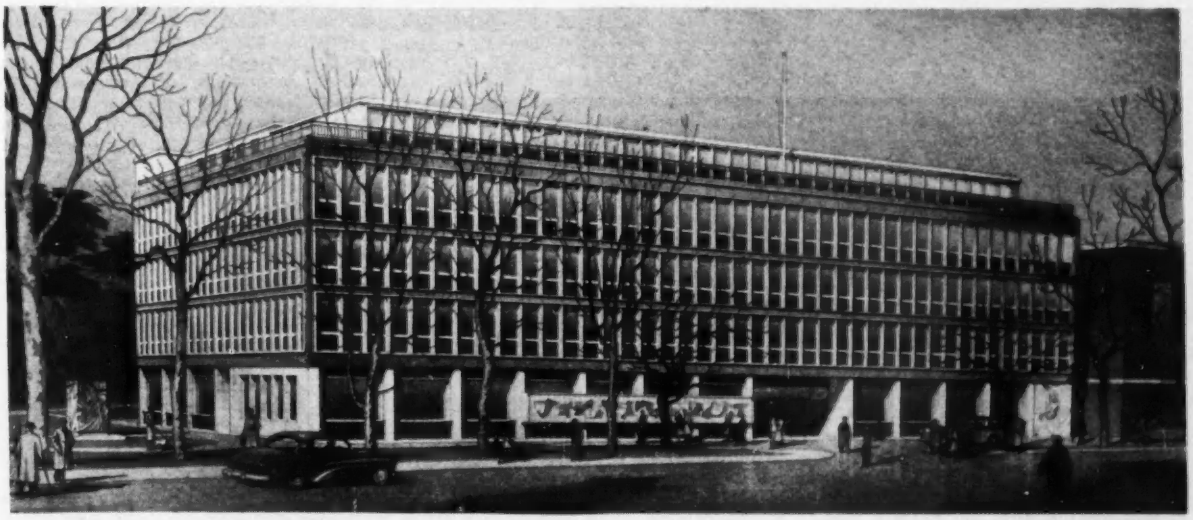
Student No.	Marks awarded by staff on jury							Final Grade
1	B+	B	B+	A	B	B	A	...A
2	C−	C	C	B	A	B	A−	...B
3	C+	C	B−	C	C−	C	C	...C
4	C	D	C−	C	C−	D	B+	...B
5	D	D	C−	C	C−	C	C+	...B
6	A	A	A	B	A	A	A	...A
7	D	D	C−	D	D	D	D	...C
8	C+	C	B	D	C−	C	C+	...B
9	E	D	D	E	D+	D	D	...D
10	E	D	C−	E	D	E	E	...C
11	C	C	B+	C	C+	B−	B−	...B
12	C−	C	B	C	C+	B	B−	...B
13	D−	E	D	D	D	D	E	...C

NOTE :—In this table the letter A denotes 'Outstanding'; B denotes 'Above Average'; C is 'Average'; D is 'Below Average' and E is 'Fail.'

It will be seen that some students, 5 and 13 for example, have been given a Final Grade which bears no relation to the average of the grades awarded by the jury. This up-grading is permitted where special circumstances (sickness—exceptional worry) are taken into consideration; also, where the staff feel that a student has been making an exceptional effort, they up-grade his work.

Faculty Organisation

No attempt is made here to give a complete outline of staff duties and organisation. In general, responsibility for each year of the course is given to one member of staff. Lecturers tend to act independently of the studio staff, often setting their own problems to demonstrate the practical application of their lectures rather than collaborating closely in the



The new £400,000 headquarters for Bowmaker Ltd., at Bournemouth, on which work has now commenced. The total floor area of the new building, which is planned on five floors and basement, will occupy over 94,000 sq. ft. It will be the first building in this country to be mechanically ventilated throughout by a new Scandinavian system which has had considerable success on the Continent. A predominant feature of the façade will be the bold use of glass. Contrasting grey and black granite will also be used. The architects are Jackson & Greenen, of Bournemouth, and the main contractors are James Drewitt & Son

overall development of a student's work, in all its aspects, as is done in Britain.

The American schools do not favour comprehensive examinations and students pass or fail in accordance with the average grades which they receive in periodic test and in studio work. The table below shows the actual grades awarded in an accredited school, in relation to a major fifth-year design project. Staff members discussed the projects but did not reveal the grade that they were awarding. At the end of the jury the grades were revealed and recorded.

The grading system is favoured because examinations are thought to cause undue strains and tensions and thus impair the freedom of design work. Any advantage gained by omitting examinations is lost, in practice, by the staff privilege of awarding grades which are not accurately related to the findings of the juries and the quality of the work submitted. This leads to undue attention being given to 'pleasing' the staff and a consequent reduction of individual freedom in design. In addition the grading system depends on a series of decisions, none of which is crucial in itself. The man in charge of a year will 'fight' for his results and, if he is a person of strong character, the jury will often accept higher grades than they really agree with.

In the United States there are about twenty schools which have facilities for work at the post-graduate level. These schools are usually of high calibre in regard to both staff and students. The scope of this article does not permit a more detailed examination of policy or method.

A Complex Problem

In conclusion it is worth recalling that architectural education provides a most complex problem at the university level. It covers aspects of aesthetics, fine arts, history, engineering, science and craftsmanship, and requires the development of considerable personal talents and skills. To these the Americans have added the study of a wide range of elective subjects. Now it is clear that to plan the work in all these fields, for lecture courses alone, presents a major problem in educational policy and organisation. But in an architectural course, where lectures must be given and then related to a series of designs carried out by individual students, the problem becomes extraordinarily complex. It is not enough to have worthwhile aims and interesting ideas; these must be translated in terms of school policy and teaching method. It is here that the American schools fail. Much of the work that they produce is of real interest but, compared with schools in Europe, it is patchy and often superficial.

American university students have been their own severest critics. They accuse themselves of being materialistic, of playing for safety, of being immature and the rest of the world has been inclined to take them at this, their own valuation. They are, in fact, very nice people to work with, friendly, independent, well-mannered and good fun. From people of their calibre America will always be able to draw a number of very fine architects.

News from the RIBA

Sir William Holford Nominated for Presidency

THE COUNCIL of the Royal Institute of British Architects, meeting on April 5, 'agreed with acclamation' to the nomination of Professor Sir William Holford, FRIBA, for the Presidency. This was made known at the Press conference held on April 6, presided over by the President, Mr. Basil Spence.

The following 20 Council nominations were also agreed. The first four names, which are included in the 20, were suggested by the Allied Societies' Presidents and were automatically included. The nominations accepted are:

Peter B. Dunham (F); A. G. Sheppard Fidler (F); Norman H. Fowler (F); J. H. Napper (F); The Hon. Lionel Brett (F); Kenneth J. Campbell (A); Bernard H. Cox (L); A. G. Derbyshire (A); Miss Jane Drew (F); J. H. Forshaw (F); E. Maxwell Fry (F); W. D. Lacey (A); H. J. Whitfield Lewis (F); Tom Mellor (A); Stanley Meyrick (A); D. E. Percival (A); C. G. L. Shankland (A); Peter F. Shepheard (F); Roger T. Walters (A); F. R. S. Yorke (F).

Other points arising from the Press conference were:

RIBA/'Ideal Home' Small House Designs Competition.—This matter, said MR. SPENCE, had come up on the minutes of the previous meeting of the Council. Considerable feeling had been aroused among some members as there was evidence that builders were 'cashing in' on the designs, and were charging considerable extra sums for houses built to the winning designs. Indignation was expressed that the extra value created by the excellence of the designs was all going as additional profit to the builders, which was not the intention of the competition. The President also indicated that the next competition along these lines would deal with really low-cost housing.

Competition by Tender.—This matter is to be further considered by a special committee of representatives from the Competitions Committee, the Practice Committee and the Design and Planning Committee as a matter of urgency.

Town Planning Joint Examination Board.—The Council agreed with a suggestion contained in a letter from the Secretary of the Board that the Board should now be dissolved. This pointed out that the Board's original purpose was to secure a uniform standard of qualification for all those practising any branch of planning, but that whilst the Board had served a most useful purpose over a long period of years there was now apparently no advantage in its continuance.

MR. SPENCE commented that this was not to be taken that the RIBA had lost interest in planning. Quite the reverse: their interest in planning was in fact on the increase, and the Board of Architectural Education was to reconsider the question of training for planning.

Bronze Medal Award.—The Council formally approved the award of the Manchester Society of Architects' Bronze Medal Award for a Crematorium at Blackley by Leonard C. Howitt, City Architect, Manchester.

Ceylon Institute of Architects.—The Institute, which was formed in September, 1957, has applied for alliance. The Institute has 27 members, of whom 26 are members of the RIBA. The Council approved the application.

Appointments

RIBA Architecture Bronze Medal Jury: Northamptonshire, Bedfordshire & Huntingdonshire Association of Architects.—At the previous meeting the Council appointed Mr. J. C. Barker (A) as the Institute's representative on the Jury. Mr. Barker was unable to accept, and, as a matter of urgency, the President appointed Mr. F. B. Pooley (F) to serve.

Ipswich Civic College: Councils for Art and Building.—On the nomination of the Suffolk Association of Architects, Mr. Birkin Haward (A) was re-appointed to serve on the Council for Art, and Mr. Peter Barefoot (A) was re-appointed to serve on the Council for Building. The appointments are for one year.

Darlington College of Further Education.—On the nomination of the Northern Architectural Association, Mr. T. Victor Deas (A) was re-appointed to serve for a further year on the board of Governors of the Darlington College of Further Education.

Books Received

***Books noted in these columns may be obtained on application to the Book Dept., 'The Builder,' 4 Catherine-street, Aldwych, WC2. Cash (to include postage on books to the value of 10s. 9d.; over 10s., 1s. 6d.) should accompany the order.*

ENGLISH DECORATIVE IRONWORK 1710-1836. By John Harris. (London: Alec Tiranti Ltd.) Price 42s.

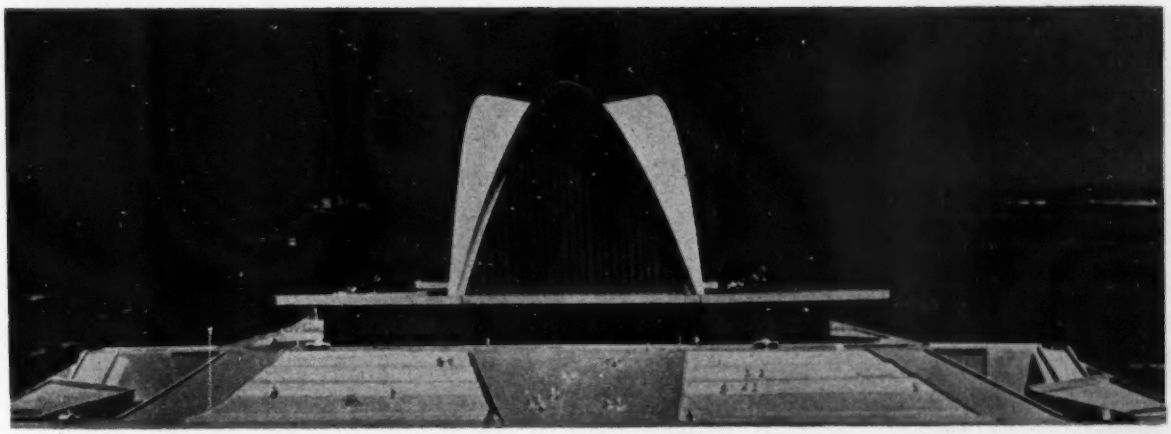
LETTERING ON BUILDINGS. By Nicolete Gray. (London: Architectural Press.) Price 25s.

FASHIONS IN CHURCH FURNISHINGS 1840-1940. By Peter F. Anson. (London: The Faith Press Ltd.) Price 50s.

YEAR BOOK OF THE HEATING AND VENTILATING INDUSTRY. (London: Technitrade Journals Ltd.) Price 15s.

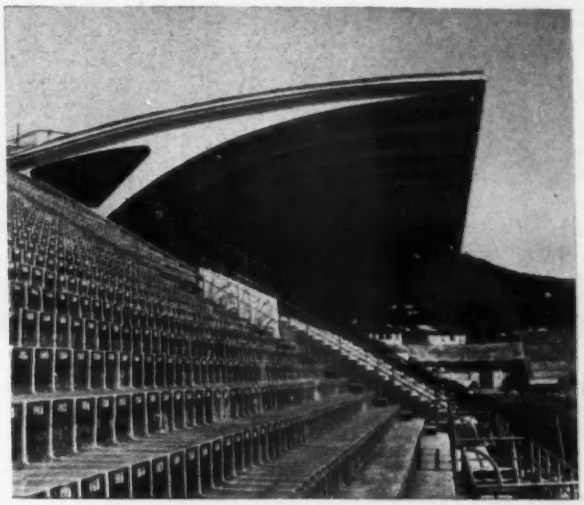
Recent Work of Pier Nervi

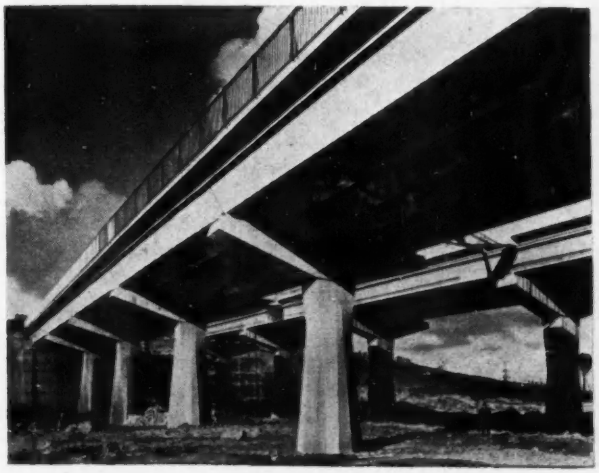
Royal Gold Medallist, 1960



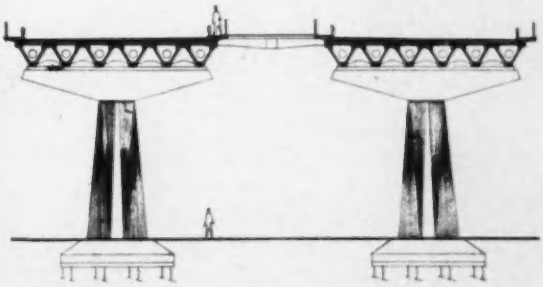
PROFESSOR DOTT. ING. PIER LUIGI NERVI has worked all his life as an engineer-designer in reinforced concrete. Professor Nervi was born at Sondrio, a small town in the North Italian Alps, in 1891, and graduated as an engineer from Bologna University in 1913. He had already, at that early date, when the material was still comparatively novel, decided on the use of concrete for his life's work, and his first employment was with a firm of concrete contractors. Apart from war service with the Engineers he stayed with them as chief engineer and designer until 1923, after which he set up his own contracting business, in conformity with his theory that it is only by being responsible for the actual construction that a designer can get the maximum out of his material.

He developed the material which he calls 'ferro-cemento,' in which the reinforcement is layers of thin wire mesh, impregnated and coated with high quality cement mortar, which gives remarkably thin, tough, resilient sections capable of very fine finish. (He used this material for making a couple of yachts for himself). The two Sports Palaces in Rome built for the 1960 Olympics show a return to the ferro-cemento construction: both the Palazetto and the Palazzo have vast fan-like roofs, carried, in the Palazzo, on beautiful twisted-section columns.





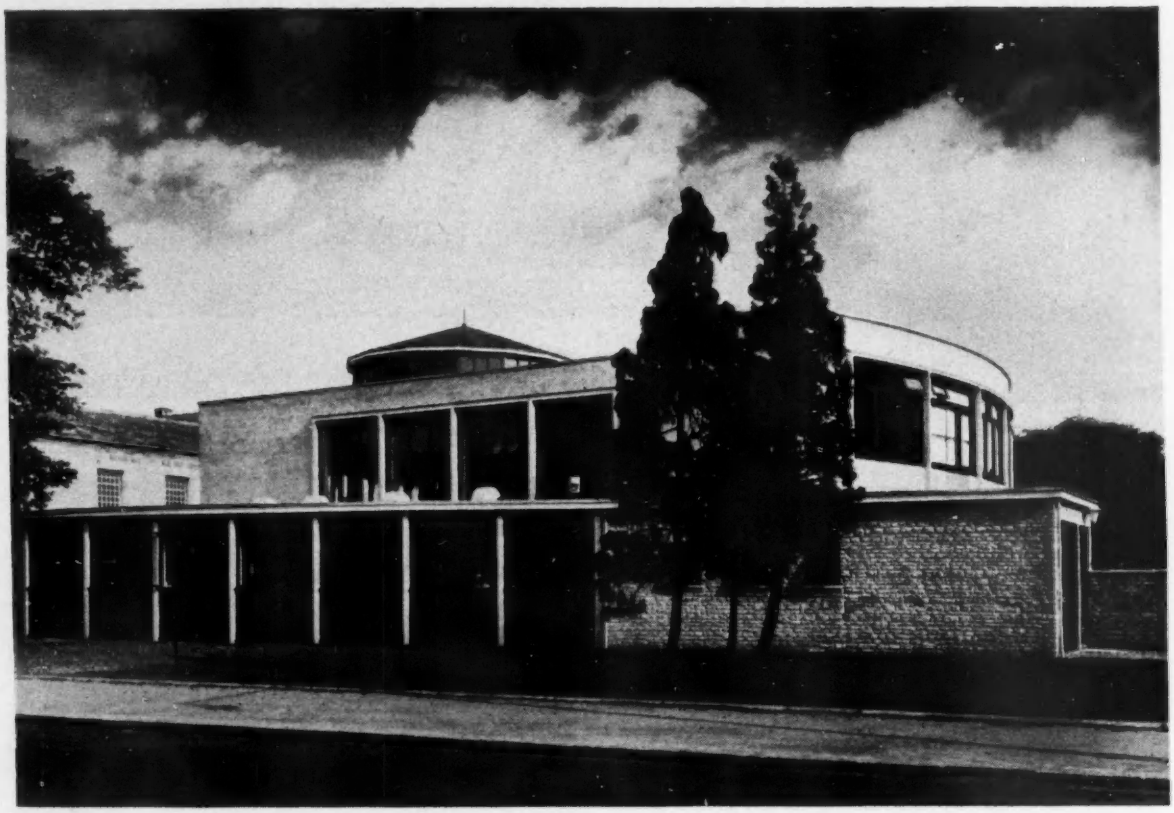
Top, New Norcia Cathedral, Australia, 1958, designed in collaboration with A. Nervi, F. Vacchini, C. Vannoni. Above, sports stadium in Florence, 1927, Professor Nervi's first work. Left and below, 'Corso Francia' elevated highway, Rome, linking the new Olympic village with a bridge over the River Tiber.



New Dining Hall

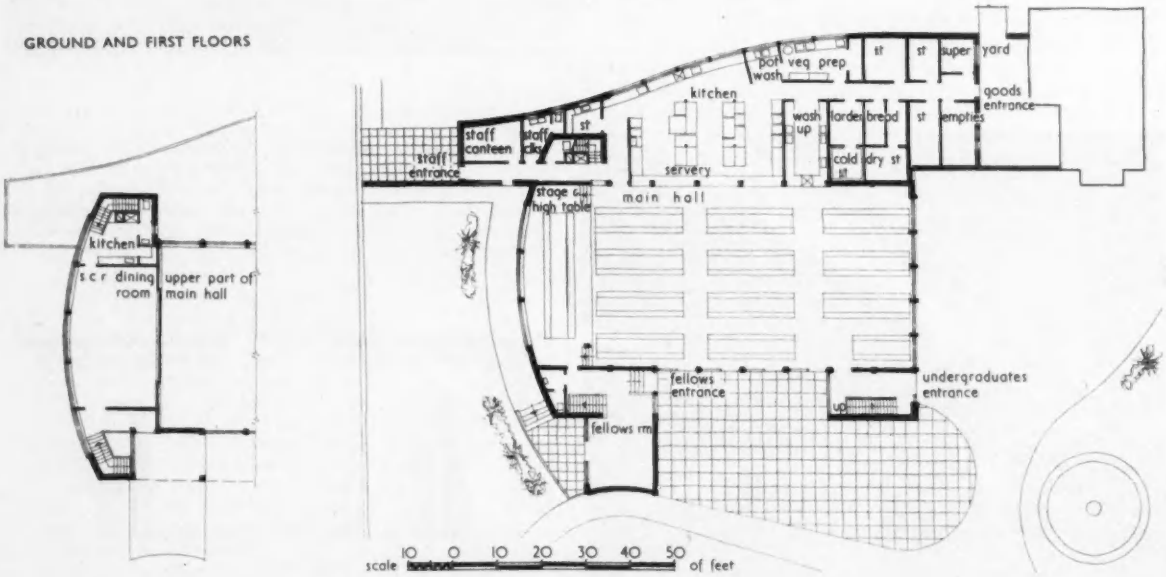
For St Anne's College, Oxford

GERALD BANKS, ARIBA, architect



West elevation, to Woodstock-road

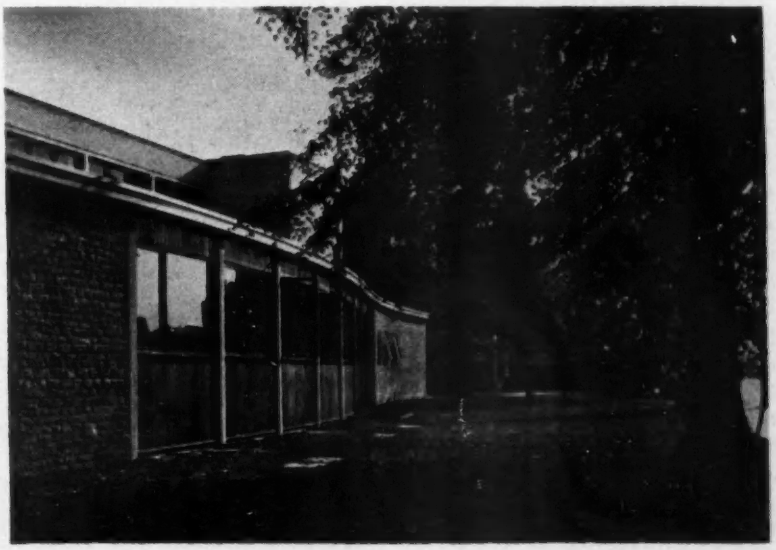
GROUND AND FIRST FLOORS



HINKINS & FREWIN LTD., general contractors

Top, east elevation, and large mural by Stefan Knapp. The design is painted in enamel on steel sheet and stoved for a permanent finish. Below, serpentine wall to the kitchen wing

THE NEW DINING HALL is surrounded on three sides by existing college buildings and the fourth side fronts on to Woodstock-road, Oxford, which is a fairly important main road. The location of the kitchens was therefore a difficult problem and a choice had to be made between the north or west side of the site because of further limiting factors. However the north façade forms a little group with the earlier Sir Giles Gilbert Scott building at the main approach to the College and here again the kitchens on this façade would have been most unsuitable. The result is that the kitchens have been placed on a very important elevation so far as the general public is concerned



but less so for the College. A varying building line produced the serpentine formation of the kitchen boundary wall.

The Hall had to be designed for multi purpose usage. Other functions which had to be catered for included dances, lectures, concerts and meetings, and therefore the acoustics play an important part in the satisfactory use of the building, which contains 300 girls at the lunch-time sitting and therefore a low sound level was required, though an effect of 'deadness' was to be avoided. The desirable condition was produced by the combination of a relatively great floor to ceiling height and the use of sound absorbent packing to the panelling of the walls and ceilings.

The college were anxious to adopt the High Table system and at the same time to use this space as a platform for plays or concerts. A feeling of intimacy was created by placing the first-floor room above the high table to reduce the height at this point. This room has four functions: as a room in which the Fellows congregate for dessert after dinner, a private dining room, a college meeting room, or as a gallery to the main hall by sliding back the dividing screens.

The tables, arranged in banks of four 5 ft. tables, are finished to match the afrormosia panelling and have metal frames and legs. The chairs are bent ply-wood in teak with metal frames and legs. Both chairs and tables can be stacked.

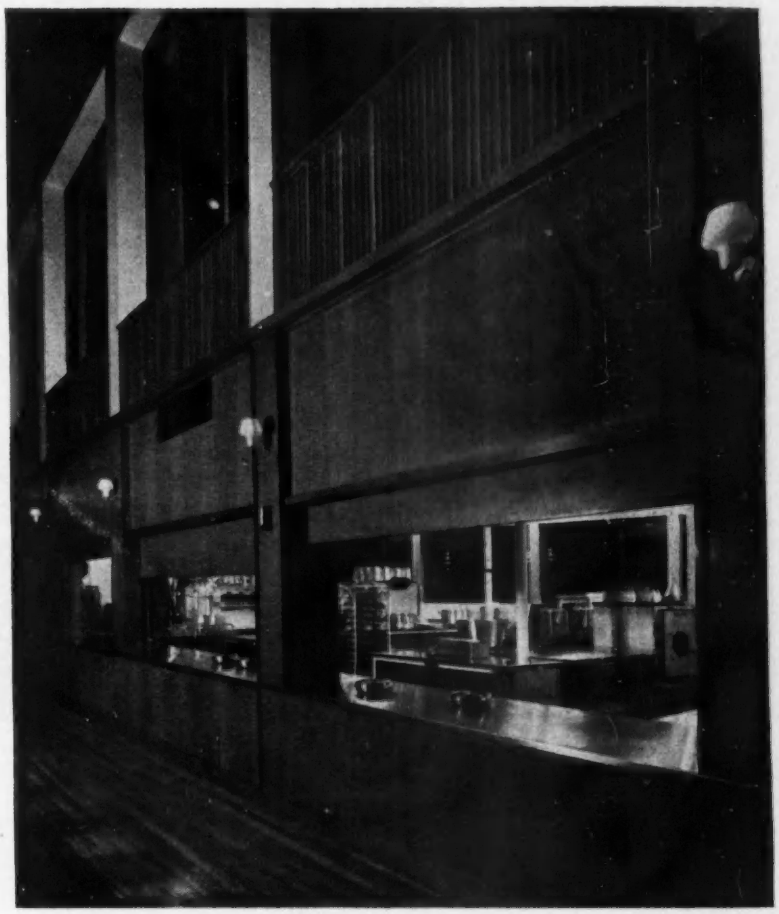
The dining hall is 89 ft. by 41 ft. with a ceiling height of 23 ft. The structure is lattice trusses supported on R.S. stanchions. Roofing is ply felt with ½ in. protective finish, on 2 in. Stramit boards on 5 in. x 2 in. joists and firring pieces, all bearing onto the lattice trusses. Loadbearing walls are 4 in. natural stone, 4 in. brickwork and 4 in. Thermalite block, all bonded together. Ceilings are aluminium acoustic tiles stove enamelled, and walls are faced in Danish acoustic panelling in afror-

Top, general view of the dining hall towards the cupola. Below, the high table and hall platform. Above is the private room which can be opened up as a gallery to the hall

mosia. Flooring is missandra hardwood on battens. Doors and windows are specials, in afrormosia. The cupola is timber frame construction secured to the structural steelwork, and the roofing is copper on 1 in. Stramit board, with aluminium acoustic tiles on the underside. The interior is plastered on expanded metal.

Heating is run off the existing boiler house through Dunham type 'M' heaters employing cased centrifugal fans. Natural ventilation is controlled by adjustable louvres. Artificial lighting is by wall fittings, spot lights and chandeliers.

The kitchen wing is built in 13½ in. solid walls of natural stone and brick backing, and precast concrete columns with cedar board infill panels backed with 9 in. brickwork. Roofing is ply felt on Stramit board on joists. Finishes are plaster and tile on walls, plasterboard ceilings, and quarry tile floors. Lighting is fluorescent ceiling fittings, and ventilation is by extract fans and adjustable louvres. Heating is by radiators and ceiling coils.



Top, servery openings to the dining hall. The walls are faced in Danish acoustic panelling in afrormosia. Below, the servery and general view of the kitchen

New Dining Hall, St Anne's College, Oxford

Sub-contractors & Suppliers:

Facing stone: Farmington Stone Quarries; *roofing:* Stramit Boards Ltd.; *hardwood flooring:* S. H. Ware Ltd.; *roof finish:* F. McNeill & Co. Ltd.; *acoustic ceiling:* John Dale Ltd.; *steelwork:* Kerby Engineers Ltd.; *kitchen equipment:* Stotts of Oldham; *heating engineers:* F. G. Alden Ltd.; *glaziers:* Hunters Ltd.; *electrical engineers:* Lowe & Oliver Ltd.; *gas:* Southern Gas Board; *artificial stone:* Constone Ltd.; *joinery work:* E. H. Bradley & Son; *ironmongery:* Parker, Winder & Achurch; *sanitary fittings:* Rownson Drew & Clydesdale; *lift:* F. Braby Ltd.; *ventilation:* Colt Ventilation Ltd.

The Strand in 1893, looking east

A Bit of Vanished London

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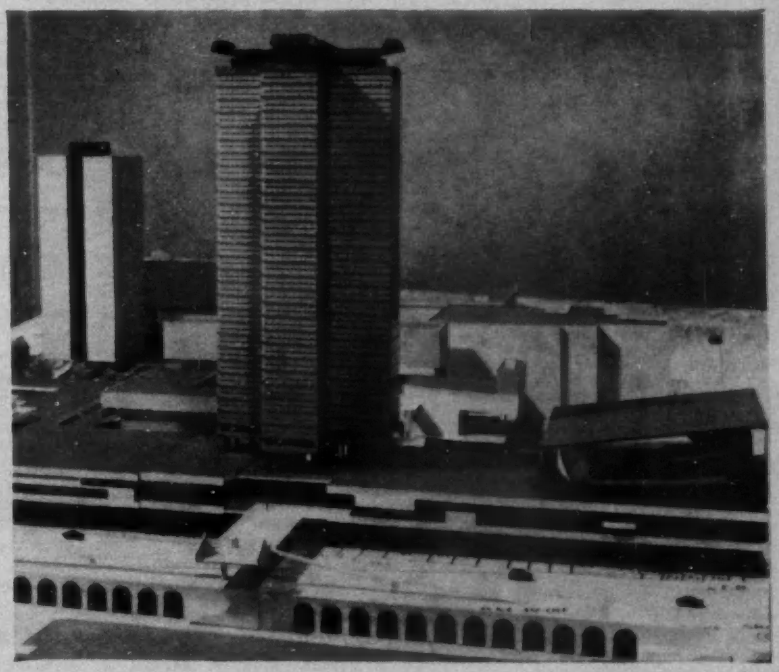

A perspective of the scheme put forward by the Taylor Woodrow Group for the reconstruction of the 11-acre site between Grevill-place and Kings-road on the sea front at Brighton, which is one of three development schemes short-listed by Brighton TC and now before the Royal Fine Art Commission. The scheme, which would incorporate elevated walkways for pedestrians with two-tier shopping, includes a 27-storey tower block of flats, a department store, supermarket and a conference hall, offices and 50 maisonettes. The architects and planning consultants are Russell Diplock Associates, and the work would be carried out by Myton Ltd., of the Taylor Woodrow Group.

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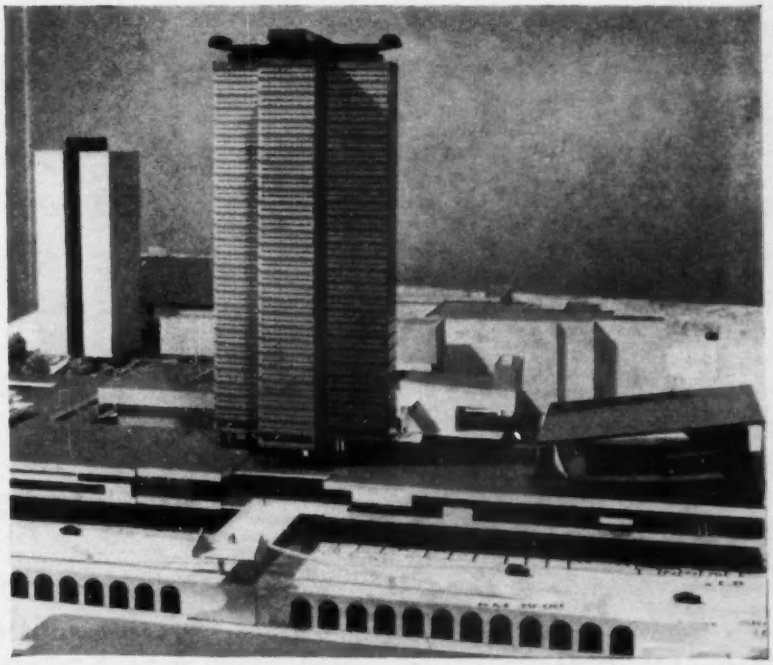

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Chief Architect, WO Works Abroad

MR. J. T. REDPATH, MBE, ARIBA, formerly Deputy County Architect, Somerset, assumed the appointment of Chief Architect, Works Abroad, for the War Office, in October last. This corrects a misstatement published in our issue of April 1 which we regret.

Bucks County Architects' Deputy

BUCKINGHAMSHIRE COUNTY COUNCIL invite applications by May 10 for the post of Deputy County Architect. Salary £2,225 per annum rising to £2,495. Details advertised elsewhere.

Housing Manager Recommendation

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Advertising Industry's Voluntary Code

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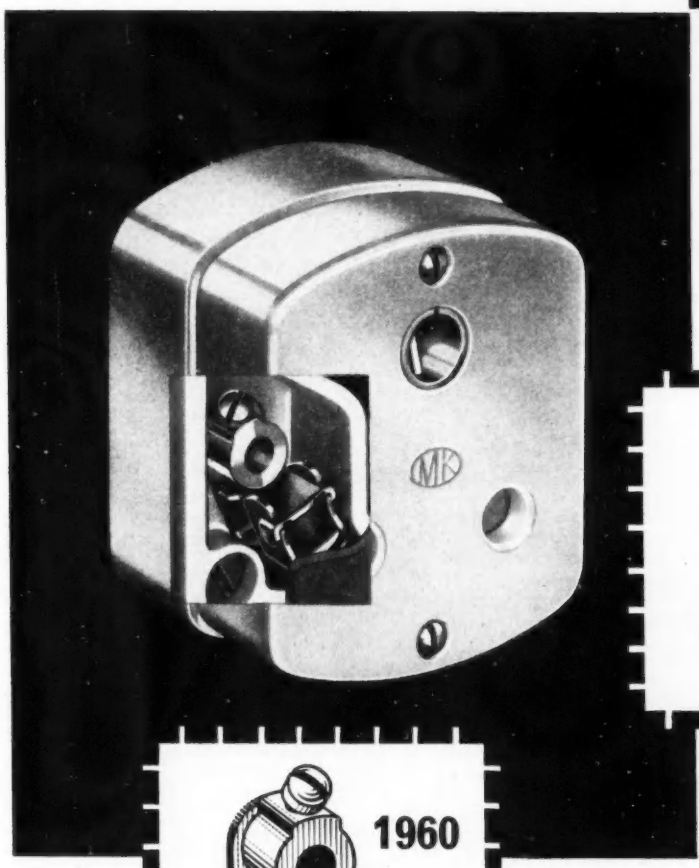
MK176DHB

The origin of MK



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MK ELECTRIC LIMITED, SHRUBBERY ROAD, LONDON, N.9. EDMONTON 5151

Chief Architect, WO Works Abroad

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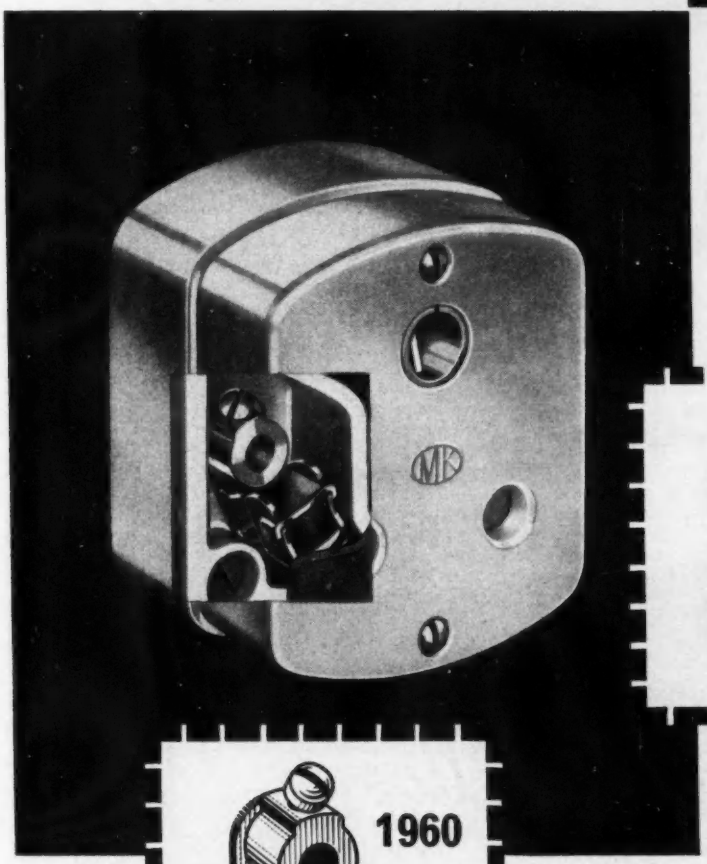

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41 EAGLE STREET · HIGH HOLBORN · LONDON, W.C.1 Chancery 7422-3-4

BRANCHES:
SOUTHAMPTON:
151 ROMSEY ROAD, SHIRLEY
SOUTHAMPTON 73176

JOINERY WORKS:
GRESHAM WORKS, SOUTH NORWOOD
ADDISCOMBE 1264

BRANCHES:
SMALL WORKS DEPT.:
COPTIC STREET, LONDON, W.C.1
MUSEUM 3705

Southern Counties Joint Consultative Committee

Successful Conference at Oxford

From a Special Correspondent

ONE OF THE first duties of the architect, said SIR EDWARD MUIR, KCB, Permanent Secretary to the Ministry of Works, was to unravel the tangled skein of his client's wishes and get some order into his ideas. The architect should lead him to translate them into precise statements of numbers and areas of rooms, of factory or laboratory space, of services required in every part of the building, and the relationship of one part of the building to another. All this required patience and the capacity to persuade the client that time, and sometimes a lot of time, taken on these preliminaries, would save both time and money later.

Sir Edward was speaking at the opening session of the second week-end Conference of Architects, Quantity Surveyors and Builders, arranged by the Southern Counties Joint Consultative Committee and held at St. Edmund Hall, Oxford, from April 8 to 10. The chairman of the Committee, Mr. W. S. Jones, FIOB, presided, and the representatives attending, limited to principals of firms, were nominated through the affiliated societies represented on the Southern Counties Consultative Committee.

Following the inaugural dinner on Friday evening, SIR EDWARD MUIR addressed the conference, taking as his theme 'The client—what he needs and how he ought to behave.' He reminded his audience that he was fully qualified to speak on the subject since for some 32 years he had worked in the Secretariat of the Ministry of Works and was, therefore, perhaps the most experienced client in the United Kingdom.

'The experienced architect,' continued the speaker, 'must bully the client, if necessary, into a realisation that vague ideas must be translated into precise statements of requirements before his plans can begin to take shape: and the architect who just goes ahead with what he thinks the client ought to need is not, repeat not, meeting his real needs. Next, and this is where the surveyor comes in, the client needs to know what his building is likely to cost—when his needs are translated into precise requirements, when his architect has made his sketch plans, what the bill is to be. It is vital that his estimates shall not be too wide of the mark—in other words, that his surveyor knows his job. But if builders are to give the client what he needs at this stage, they too must have precise information as to layout, plans, methods of construction and services.

Aesthetics and the Architect

Sir Edward pointed out that clients had strong ideas about what a building should look like. Most architects had equally strong ideas about the aesthetics of their profession. Clients, on the whole, liked what they had been brought up with and from the architect's point of view they tended to be out of date. This was no new problem, though perhaps it was more acute today than at some times in the past because the revolution we had seen in methods of construction had carried with it a revolution in aesthetics. The speaker felt bound to say that the client had to have the last word, though if the architect could educate him in matters of taste, that was all to the good. If the architect and the surveyor contrived to meet the client's needs, then the builder's task should be straightforward enough. What the client needed of him was a firm tender, first-class workmanship, completion to time, and no claims.

Turning to the second point in his discussion, Sir Edward said that only the client who behaved properly would get what he really needed. The first and vital element in good behaviour on a client's part was that he should know—or should allow himself to be brought to realise—not in broad outline, but in very considerable detail, what he really wanted before ever the planning of his building started. The second was that he should know what he was prepared to spend on his building and be prepared to adjust his requirements to his finance before the contractor started on the site.

The third was that, having chosen his architect, he should not be too insistent in imposing his own aesthetic ideas on that architect. Finally, he should not change his mind once building had begun and, of course, he should be ready to pay promptly on his architect's certificates.

'Organisation Within the Industry'

At Saturday morning's session MR. E. D. JEFFERISS MATHEWS, OBE, FRIBA, addressed the conference on 'Organisation within the Building Industry.' The chair was taken by Mr. P. H. P. Lovell, FIOB.

Mr. Mathews defined organisation as a means of fulfilling the purpose of the design and erection of buildings. 'Familiarity with the subject,' he said, 'makes it necessary to re-examine first principles so that we can see where improvements can be made.' The speaker divided the process of building into three distinct phases of operation: (i) design—the proper efficient arrangement, economically and aesthetically, of the accommodation requirement; (ii) the determination of the cost which will be incurred; (iii) the erection of the building.

'The responsibilities for these phases,' he said, 'also fall reasonably accurately into the present arrangement of principals in the industry—architect, quantity surveyor and builder. But here lies the first danger and the cause of initial trouble leading to uneconomic building. The dangers which the old simple division of responsibilities can lead today, with the complexity of any building operation, are:

(i) The isolation of the various parties from one another so that there are misunderstandings and the absence of the essential sense of collaboration.

(ii) The placing of the architect in the impossible rôle of a "know all" in a complex production process which today it is impossible for one single person to be completely knowledgeable.

(iii) Theoretical methods of pricing leading to a similar theoretical assessment of actual alleged cost, instead of a practical assessment which can lead to a realistic cost.

(iv) Forcing the builder to build uneconomically because he has not been given the opportunity to express his views as the expert on construction and erection.

The First Aim

'Improvements in collaboration and a re-assessment of responsibilities,' he continued, 'must be our first aim in seeking the economy and efficiency of building. The problems which these pose, and for which solutions must be found, are:

(i) A clearer definition of responsibilities and a limiting of some responsibilities.

(ii) Ways and means of close collaboration at all stages of the process.

(iii) Adequate time for preparation for the erection.

'Within the industry we know fairly clearly how these can be achieved, but we have so far failed to make the building public aware that the old procedure is not now efficient. We are consequently hamstrung from the start. The industry should make a concerted campaign on the building public.

'The architect (with his engineer collaborators) must obviously have entire responsibility for design—the interpretation of the accommodation requirement into special form. As this is the creation of the building it places him, in my opinion, in the position of leadership for the whole building process, but, as in military operations, the requirements for leadership do not need—nor should they embody—detailed knowledge of the whole complex process. Leadership primarily is the proper use and co-ordination of the resources at the disposal of the leader. We must remove from the responsibility of the architect the expert knowledge necessary for the right erection of the building. This is the builder's job. It is the division of responsibility between architect and builder which needs revision to avoid the inefficiency of the architect attempting to be the "super-man." The need to decide long before a builder is appointed on the way the building is actually to be erected is not the right rôle of the architect.'

The attributes which an architect's training, character and experience should provide were: (i) the ability to interpret accommodation requirement into structural form should automatically provide, and be inseparable from, good architectural composition; practicability of design

and aesthetics were one, not two elements; (ii) a willingness to collaborate with engineer and builder to enable the design to be interpreted into an efficient and economical structure which was easy to build—a greater awareness of the science and techniques of building than was at present given to him in his training; (iii) a sense, and some knowledge, of economics; and (iv) the ability to administer and organise—an essential attribute of the leader.

The Quantity Surveyor's Part

'The quantity surveyor must,' continued Mr. Mathews, 'primarily be an adviser on cost. In a properly constituted building organisation this service should be both to the building owner—through the architect—and the builder. His role of "accountant" is secondary although essential. Today he has become too aloof from the practical cost of building and it is my opinion that this aloofness increases cost. The Standard Method of Measurement—as a "bible" and textbook—should be burnt! It is as difficult for the quantity surveyor to price realistically so long as he is remote from the builder, as it is difficult for the architect to arrive at the right structural form.

'The builder—as the expert in the methods of erection—should be given the opportunity to say how the building should be built, how the design should be developed to provide an efficient and economical erection process. Our system today seldom allows this through the too late introduction of the builder into the pre-building process and so causes both the architect to attempt the rôle which should be the builder's, and the quantity surveyor to rely on theory and not practice in assessing the method of costing.

'But also a greater responsibility should fall on the builder. There are only two principal parties to the building contract —as to the purchase of any commodity— the building owner and the contractor. Given the right conditions for the proper erection of the building the builder should be wholly responsible to the building owner for quality and the right cost and so remove from the architect the rôle of "policeman" in a sphere which he is not competent to "police," and from the quantity surveyor the method of assessing cost on a theoretical basis.'

The speaker thought that the means to achieve this proper organisation must be the elimination of competitive tendering as we knew it today. Architect (with engineers) quantity surveyor and builder should be so appointed that they could work together from the start of the whole process. To do so the building public had to be told — and by proof made aware—that it was the right economical process for building.

Mr. Mathews thought that steps toward the achievement of this could be made by a change in the method of training architects; an increase in the status and proof of integrity of the builder; and the education of the building public that there was 'a right economic cost' for every building and that this was not achieved by 'bargaining' nor by price cutting—in other words it was seldom achieved through the method of competitive tendering, subject as it was to whims and factors unrelated to the proper cost.

Finally, there was, he said, the necessity for sufficient pre-building time. To preach this 'gospel' to the building public was perhaps the most important single step towards proper building organisation and the achievement of the right economic cost.

Mr. Mathews pointed to three factors where he considered builders in general to fail. These were: (i) in their ordering organisation and the proper 'chasing' of suppliers and insistence on the right quality of materials ordered; (ii) in the administration of sub-contractors; and (iii) in unrealistic programming with which he related insufficient appreciation of probable effects of weather.

The early appointment of a builder, the speaker concluded, was the way to achieve the early collaboration which was the key to better organisation.

Discussion

Opening the discussion MR. G. D. WALFORD, FRICS, said that in the old days the architect was very much a constructor as well as a designer. That the architect should lead the building team was now difficult to understand. He felt strongly in favour of simplifying the bill of quantities but this could not be done, he said, unless full working drawings were provided at an early stage. In the matter of early collaboration Mr. Walford wondered whether the builder had a team which was capable of offering very much at the design stage.

MR. R. BRAYBON, MBE, FIOB, thought that the integrity of the builder was a major stumbling block. He ought to improve his public relations, destroy the present attitude and help them to understand the question of the right economic cost.

MR. MATHEWS agreed and added that architects must also teach the client what exactly was involved from the preparation of working drawings to the commencement of building operations.

MR. R. WHITTINGTON, FIOB, was concerned about the greater use of nominated sub-contractors since the war. He said it was the architect's responsibility to see that as much work as possible was carried out by the general contractor. The mass of sub-contractors were no doubt well controlled but there was always the difficulty of their integration by the builder who was committed to a schedule.

MR. MATHEWS agreed that architects should reduce nominated sub-contractors but thought that the present situation was probably transitional.

MR. R. COOKSEY, FRIBA, asked what would happen about abandoned works and the question of payment to builders for work done. He thought that the architect should explain this point to his client.

MR. MATHEWS said that he proposed no alteration to the architect's role of quasi-arbitrator. He spoke of tendering on a fixed fee with some form of negotiation and added that time should be a decisive factor. Time was money to the client.

MR. F. J. GUY, ARIBA, was convinced that the architect should understand the assembly of building. It was inconceivable that conception should be separated from assembly on site.

MR. MATHEWS said that it was a question of co-ordination; an architect required a knowledge of all things, not necessarily expertise.

Management and Organisation

At the afternoon session, chaired by Mr. A. Burnand, FRICS, a brilliant academic treatise on 'Contract Management and Organisation' was submitted by MR. T. V. PROSSER, FIOB. In it he detailed, stage by stage, the methods and techniques that ideally should be used from the pre-contract or tendering stage to settlement of the final account. His suggestions included a complete specification of materials, quality of workmanship and soil research data; a fully annotated bill of quantities; full sets of ¼th scale drawings and full size details. All these to be provided at tendering stage.

Mr. Prosser then went on to detail the duties and requirements of the builder's own team, enumerating their functions and the extent of their responsibilities. Pre-planning, the integration of nominated sub-contractors, plant requirements, materials delivery and labour force arrangements were all fully and succinctly explained. The speaker advocated regular consultations with specialists and sub-contractors, but thought that site meetings involving the attendance of the architect were unnecessary.

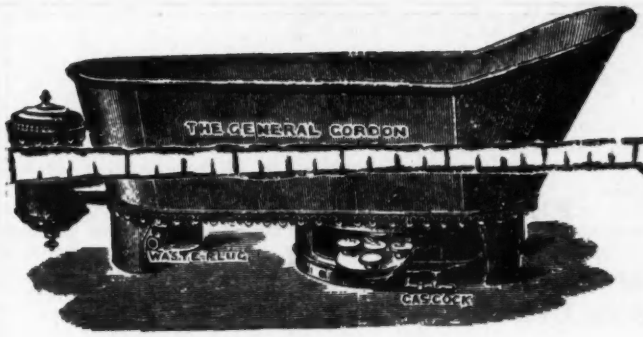
The subsequent discussion, which was led by Mr. F. Greenwood, FRIBA, and Mr. J. B. Ratcliffe, a builder, was to some extent a re-appraisal. All present seemed agreed that Mr. Prosser had said everything there was to say on the subject.

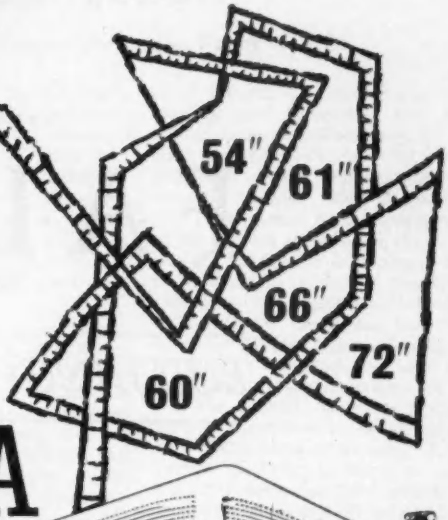
Joint Education

MR. ERIC L. BIRD, MBE, MC, ARIBA, submitted the final paper of the conference; Mr. R. Duncan Scott, FRIBA, was in the chair. The principal questions posed by the speaker whose subject was 'Joint Education and Training for and within the Building Industry,' were: The desirability of combined elementary training and how far it should go; what subjects should be taught in this combined training; how the present teaching and examination systems could be altered to fit into this combined training; facilities for the part-time student; short post-graduate courses and whether they were desirable; and finally how they should be organised and where.

One of the suggestions put forward in the subsequent discussion was that there should be an administrative staff college for training at high level. Such a college, it was suggested, could be designed on the lines of the York Institute of Advanced Architectural Studies. It was also suggested that it should be financed or at least subsidised by the government. The discussion leaders on this occasion were Mr. Peter Johnson, FRICS, and Mr. R. W. Whittington, FIOB.

After lunch on the final day MR. PETER CORSAR, JP, FRIBA, summed-up the week-end proceedings. He epitomised the earnest sincerity and spontaneous humour that made this conference a successful and notable occasion.





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Professional Negligence

The Duties of a Surveyor Defined in Paper to RICS

'IF MORE ATTENTION were paid to the wording of reports, many actions for professional negligence would be avoided,' said MR. C. A. MARTIN FRENCH, FRICS, FAI, in the course of a paper on this subject which he read at a meeting of the RICS on Monday, April 4. We take the following extracts from the address:

What is negligence? This depends on the facts with which one has to deal. In *Blyth* v. *Birmingham Waterworks Company* (1856), 11 Exch. 781, at page 784, Baron Alderson said: 'Negligence is the omission to do something which a reasonable man guided upon the considerations which ordinarily regulate the conduct of human affairs would do, or doing something which a prudent and reasonable man would not do.'

It is the duty of the court, if necessary, to define what is the standard of care required. This standard is founded on a consideration of the care which would be observed by a prudent and reasonable man.

'The practice of a profession, from its nature, demands some special skill, ability or experience, and carries with it a duty to exercise, to a reasonable extent, the amount of skill, ability, and experience which it demands. If a person so practising fails to possess that amount of skill and experience which is usual in his profession, or if he neglects to use the skill and experience which he possesses or the necessary degree of care demanded or professed, he will usually be liable for breach of contractual duty' (*per* Halsbury's 'Laws of England,' Third Edition, Volume 28 on Negligence at page 19).

Duty of a Surveyor

The extent of the duty is honestly and diligently to use that care and skill which would be used at the time by other competent persons in the same profession. A surveyor will not, however, generally be held liable for injury resulting from a mere error of judgment on a difficult point. If the surveyor is acting in accordance with the practice accepted as proper by a responsible body of surveyors skilled in that particular art, he is not negligent, merely because there is a body of such opinion that takes a contrary view.

A person should not, however, undertake to do work of skill, unless he be fitted for it, and it is his duty to know whether or not he is so fitted. The surveyor whose practice is mainly professional work is selling his knowledge and experience—nothing else. He is not like the estate agent who has a client's property to sell or let.

In professional work, one must decide whether one is competent to advise in a particular manner. If one has not the skill or knowledge to carry out the work, then it is the surveyor's clear duty to refuse the work. There is a duty both to the client and the profession.

It often happens that work is accepted in good faith. Certain difficulties may arise during the progress of the work, the solutions of which are beyond one's own capacity. In my opinion, there is no disgrace in not knowing the answer to a particular problem. It is the duty of the surveyor to decide whether the client should be advised to take a second opinion. Alternatively, a second opinion can be sought from a professional colleague and his fee met from one's own fees.

Claims made by clients against a surveyor arise in two ways. 1. *The Direct Claim*—where the client alleges that the surveyor has been negligent in his advice; 2. *The Indirect Claim*—where the client is being sued by the surveyor for his fees, and alleges in his defence that the surveyor has been negligent in his advice and counterclaims for damages.

The surveyor should in no circumstances deal with the solicitor's letter which he received nor communicate with his client. He should consult his own solicitor who will advise what to do. The insurer's solicitors should never be permitted to act for the surveyor.

Secondly, if one is insured one's solicitor should be asked to give immediate notice to the insurers under the terms of the policy.

It is not sufficiently realised by the profession that a client, in starting an action for professional negligence, must rely on the written report of the surveyor to prove his case. Remember the report will play a vital part in the action. It will be considered in every detail in open court by: 1. the Judge or Official Referee who may be trying the case; 2. the counsel acting for the parties; 3. the solicitors acting for the parties; and 4. the professional experts called to give evidence on behalf of the parties.

All the gentlemen mentioned are fully conversant with the standard expected of a surveyor. It is fair to say that any experienced surveyor conversant with claims for professional negligence can easily assess the real value of a report and determine whether the surveyor has acted in accordance with standards accepted by our profession. It is my opinion that, if more attention were paid to the wording of reports, many actions for professional negligence would be avoided.

Having referred to a number of instances of defective report writing the lecturer concluded as follows:

Attitude of the Client

It is true to say that the greatest worry in the profession today is the fear of an action for professional negligence in respect of a structural and sanitary survey carried out on behalf of a client. I think it only right and proper that one should try to see the matter through the eyes of a client. The purchase or leasing of a house is a matter of great importance to him. Why does a client seek to obtain a surveyor's report? He wishes to be assured that the project he is embarking upon is prudent and that he is not making a foolish bargain. A first-class report will confirm: 1. whether the project is sound, and that there are no unusual financial risks involved; 2. certain defects may be disclosed as a result of the survey, so that the client can then ask the vendor for a monetary allowance to be made in respect of the defects disclosed—if the suggested allowance is not sufficient, the client can then withdraw from his bargain if he so wishes; 3. that the project is a bad one, and the client would be ill-advised to proceed.

If the client is correctly advised, he is then in a position to decide what course of action he wishes to take. A first-class report discloses to him, in detail, the financial responsibilities which he must bear if he decides to proceed with his project. One can well understand a client's annoyance if the report fails to disclose defects which are material, especially if he has concluded his bargain in the light of the report. The tragedy is that the client is now committed and must, in the circumstances, face up to the unknown financial liabilities which may be considerable, and often beyond his financial resources.

A Matter of Conscience

The late T. W. Wheeler, QC, in his paper entitled 'Legal liability for Professional Opinion' read at the Ordinary General Meeting of the Surveyors' Institution on February 21, 1898, concluded with this very wise advice, which is still as true today as it was in 1898. He said: 'Failure of duty, negligence, or ignorance rightly makes surveyors liable to those who retain them. This ignorance may spring from two principal sources—want of actual knowledge or want of experience.'

I confess my own view is that, whether it be in a report on the value of property made for a client, whether for the purpose of purchase or mortgage, or in the evidence which he may give in contested or litigated cases, and still more when his skill or experience is sought to prove the negligence or ignorance of his brother surveyor, the difficulties of expert evidence grow and do not diminish and what might have been sufficient professional knowledge years ago could not for a moment be deemed sufficient or efficient now. These circumstances throw upon one the burden of increasing responsibility. I have been asked by a very eminent member of our profession if I can define the word 'negligence' or 'want of skill' or clothe it in the shape of some legal definition: I have replied 'No, I cannot.' The true answer is to be found in that which no solicitor can suggest or counsel advise—for conscience will tell you how and why you have failed and this will seldom be if you count yourselves as you should, 'Debtors to your profession,' and keep, as it is your duty to keep, the sternest faith with yourselves.

The Week in Parliament

From Our Own Correspondent

Development near St. Martins

BEAUTIFUL DESIGN could not be created by Government will or decree commented SIR KEITH JOSEPH, Parliamentary Secretary to the Ministry of Housing and Local Government, on March 29 when he was questioned about the development proposals for the site adjacent to William IV-street and St. Martin-in-the-Fields Church.

Sir Keith told Mr. K. Robinson that the LCC, as planning authority, granted permission for this development in March, 1959, after consulting the Royal Fine Art Commission. The Commission recommended that the height should be reduced by one storey, but the LCC considered that this would have an adverse effect on the proportions of the building.

MR. ROBINSON: 'Does not the Parliamentary Secretary agree that the published sketch plans of this building suggest that while it is not, perhaps, in the Café Monico category, it will be a building of little or no distinction, and totally unworthy to stand beside its uniquely beautiful neighbour? Cannot the Minister use his powers to get something a little better on this very important site?'

SIR K. JOSEPH said these were matters of judgment and the LCC were not without their own architectural advisers.

The US Embassy Eagle

MR. MARCUS LIPTON asked when planning consent was given to the erection of an aluminium eagle with a wing-span of 35 ft. on the American Embassy Building in Grosvenor-square, London.

SIR K. JOSEPH: 'The design approved by the LCC included a large cartouche on the façade. It is now proposed to substitute an aluminium eagle. The planning authority is being consulted.'

The Hospital Building Programme

TOTAL estimated expenditure of £28,550,000 on new hospital buildings, conversions, furniture and equipment is detailed in the 1960-61 Civil Estimates for the National Health Service of England, Wales and Scotland, published on March 29. This represents an increase of £4,350 000 on the 1959-60 figure.

In England, Regional Hospital Boards are expected to get advances for capital projects of £19,200,000, compared with £15,922,500 in 1959, with a further £4.5m. to teaching hospitals, compared with £3,570,000 in 1959-60. In Wales £1,700,000 is set down for projects compared with £1,655,000 in 1959-60 and a further £100,000 to teaching hospitals, compared with £85,000 in the previous year. In Scotland the comparable figure is £3,050,000 (£2,967,500 in 1959-60).

The estimates list 64 projects in England, each estimate to cost £100,000 or more (including fees and equipment) on which work began before December 31, 1959. Their estimated total cost is £34,976,476, the probable expenditure to March 31, 1960, is put at £9,293,311, and MPs are asked to vote a further £7,536,623 towards their completion.

These votes include:

£140,000 towards the department of neurosurgery, Newcastle General Hospital (estimated total cost £534,600); £301,500 towards Stage II, new hospital at Hensingham, West Cumberland (£2,265,000); £300,000 towards new hospital at Huddersfield (£4,250,000); £150,000 towards Phase II of the development of Balderton mental deficiency hospital, Newark (£739,730); £100,000 towards the development of Scunthorpe and District War Memorial Hospital (£1,251,500); £639,805 towards the new hospital at Welwyn-Hatfield (£2,137,488, excluding equipment costs); £400,000 towards Phase II of developments of new mental deficiency hospital, Greaves Hall, near Southport (£1,555,828); £330,265 towards Poole General Hospital (£812,029, equipment costs not known); £514,300 towards first stage of new hospital, Hills Road for the United Cambridge Hospitals (£1,001,178); and £250,000 towards the extension to the Royal Marsden Hospital, The Downs Hospital, Sutton (£800,000, including £200,000 from other sources, equipment costs not known).

There are 91 projects listed on which work was not commenced at December 31, 1959. It is stated that the estimates for these, made by hospital authorities, are in many cases necessarily tentative. The planning of all the schemes is proceeding and a selection will be made for starting during the year. In 53 of the projects various comparatively small sums are given as the probable expenditure to March 31, 1960, leaving 38 in which there is no expenditure to March 31, 1960. Here are the details, the first figure being total estimated cost, the second probable expenditure to March 31, 1960, and the third the estimated expenditure in 1960-61:

* Denotes equipment costs.

Newcastle Regional Hospital Board.—Newcastle General Hospital, new casualty and orthopædic department, £143,350, nil, £30,000; Ashington Hospital, three-storey ward block, £248,000, nil, £77,500; Hensingham Hospital, maternity dept., £295,200, nil, £17,000; Prudhoe and Monkton mental deficiency hospital, development, Phase III, £515,795, £17,000, £115,000.

Leeds RHB.—Hull Maternity Hospital, ward block, *£105,585, £15,000, £50,000; Skipton General Hospital development, *£120,050, £4,637, £20,000; St. James's Hospital, Leeds, additional theatre block and physiotherapy departments, *£267,730, £3,700, £19,500; Western General Hospital, Hull, new hospital, *£2,850,000, £25,082, £75,000; Pontefract General Infirmary, development, *£570,000, £6,244, £50,000; St. James's Hospital, Leeds, pædiatric unit, *£98,000, £2,050, £5,000.

Sheffield RHB.—Mount Vernon Hospital, Barnsley, development to accommodate chronic sick, £325,000, £9,240, £25,000; Royal Infirmary, Derby, central kitchen and staff dining accommodation, £164,504, £5,500, £30,000; Highbury Hospital, Nottingham, ward ancillary accommodation, £110,021, £3,400, £10,000; Royal Infirmary, Leicester, new boiler house, £125,050, £1,000, £35,000.

East Anglian RHB.—General Hospital, Newmarket, new steam boiler plant, etc., £162,300, £26,895, £67,320; Northgate Hospital, Great Yarmouth, new medical unit, *£113,281, £3,847, £47,434; Little Plumstead mental deficiency hospital, nr. Norwich, major development, *£447,400, nil, £52,007, and same hospital, recreation hall and administration block, *£108,510, £6,697, £57,286; Peterborough and District Memorial Hospital, development, £2,967,646, £26,391, £351,000; Fulborn Mental Hospital, nr. Cambridge, new admission block, £278,088, £4,588, £77,050.

North West Met. RHB.—Bedford General Hospital (South Wing), out-patient, casualty and pathology departments, *£140,000, nil, £5,000; St. Bernard's Hospital, Southall, admission unit, *£129,000, nil, £40,000; King Edward Memorial Hospital, Ealing, out-patient and casualty departments, *£140,000, nil, £10,000; Willesden General Hospital, out-patient and casualty departments, *£144,710, nil, £10,000; Royal Northern Hospital, N7, out-patient department, casualty and X-ray departments, *£558,750, £28,245, £130,000; Hillingdon Hospital, rebuilding, Stage I, *£2,849,662, £57,525, £103,800; Luton and Dunstable Hospital, major development, *£817,132, £21,332, £140,750; Slough, new hospital, *£2,102,861, £122,000, £315,000; Leavesden Hospital, development, £98,425, nil, £14,900.

North East Met. RHB.—Oldchurch Hospital, Romford, out-patient department, £379,000, £10,000, £100,000; Lewisham Hospital, SE, Phase II, X-ray department, twin operating theatre and dispensary, £330,000, £7,508, £75,000; Buckland Hospital Dover, upgrading of disused ward accommodation, £107,034, £11,372, £70,000; St. Nicholas Hospital, SE18, out-patients' dept., £150,000, nil, £5,000; West Hill Hospital, Dartford, out-patients dept., £100,000, nil, £5,000; West Kent Hospital, Maidstone, additional operating theatre and ward accommodation, £109,085, nil, £25,000.

South West Met. RHB.—St. Stephen's Hospital, Chelsea, Stage 1, out-patient and departmental block, £276,364, nil, £50,000; St. James's Hospital, Balham, development, Stage II, £305,563, £55,943, £85,432; Mayday Hospital, Croydon, Stage I, out-patient and casualty depts., etc., £280,046, nil, £100,000; Kingston Hospital, development, Stage I, *£357,000, £29,881, £90,000; Metropolitan Convalescent Home, Walton, *£112,780, £3,000, £50,000; Lambeth Hospital, SE11, development, *£162,044, £5,105, £50,000; Worthing Hospital, kitchen, dining room and cubicles wards, *£102,375, nil, £15,000.

Oxford RHB.—Kettering and District Hospital, development Stage I(b), out-patient dept., casualty dept., wards, etc., £689,930, £52,000, £150,000; Princess Margaret Hospital, Swindon, new hospital, Stage II, £1,500,000, £115,000, £250,000; Borocourt Hospital, nr. Reading, Stage I, sick hospital and admission unit, £148,035, £16,050, £75,000; RHB new headquarters, £131,000, £2,000, £37,700.

South Western HRB.—Truro, new hospital, Stage I, *£1,030,000, £8,476, £40,000; Coney Hill Mental Hospital, Gloucester, reorganisation of engineering services, *£193,920, £7,920, £30,000; Roundway Mental Hospital, Wiltshire, admission and treatment unit, £134,540, £2,600, £50,000; Royal National Hospital for Rheumatic Diseases, Bath, development, £228,000, nil, £10,000; St. Austell, Phase I new district hospital, maternity unit, £190,000, £2,103, £2,000.

Birmingham RHB.—Summerfield Hospital, demolition of centre block and provision of alternative accommodation, £250,000, £5,151, £6,000; Hollymoor Hospital, long-stay annexe, £300,000, nil, £5,000; Shelton Hospital, nurses' home and training school, £128,000, nil, £5,000; Royal Hospital, four operating theatres, £159,000, nil, £5,000; New Cross Hospital, boiler house, £101,000, nil, £5,000; Corbett Hospital, out-patients' dept., £322,500, £2,225, £5,000; Hallam Hospital, kitchen and dining rooms, £107,500, nil, £5,000; Manor Hospital, operating theatre and X-ray department, £112,700, nil, £5,000; North Staffs Royal Infirmary, accident department, ward block and operating theatres, £275,000, £346, £10,000; Selly Oak Hospital, operating theatre, £110,000, nil, £5,000; Rubery Hill Hospital, central boiler house and engineering services, £184,000, nil, £25,000; same hospital, out-patients' dept. and admission unit, £362,000, nil, £30,000; Lea Castle Colony, extensions, Phase II, £1,090,525, nil, £40,000; Dudley Road Hospital, out-patients' dept., etc., £500,000, nil, £9,000; Selly Oak Hospital, out-patients' dept., £320,000, nil, £10,000.

Manchester RHB.—Bury General Hospital, twin operating theatre, etc., £116,020, £1,000, £7,000; Rochdale Infirmary, out-patient dept., £103,943, £838, £10,000; Victoria Hospital, Blackpool, development, Stage I, *£458,000,

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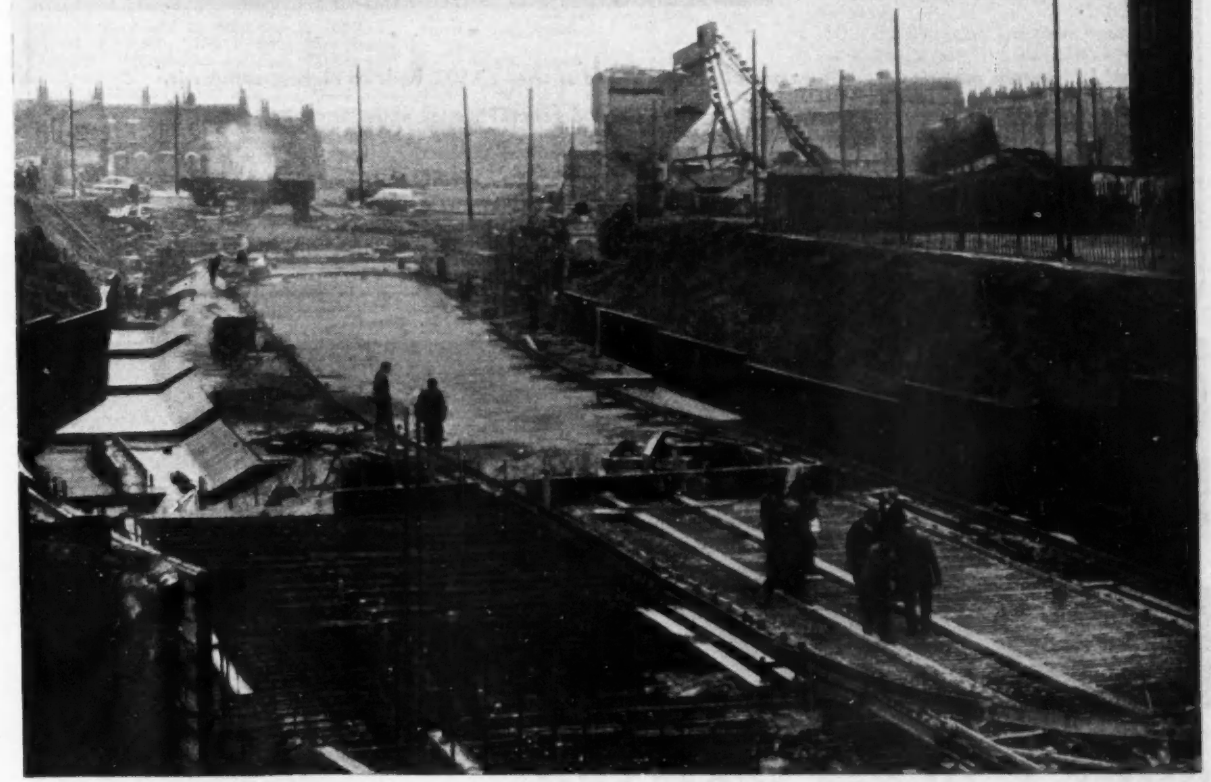

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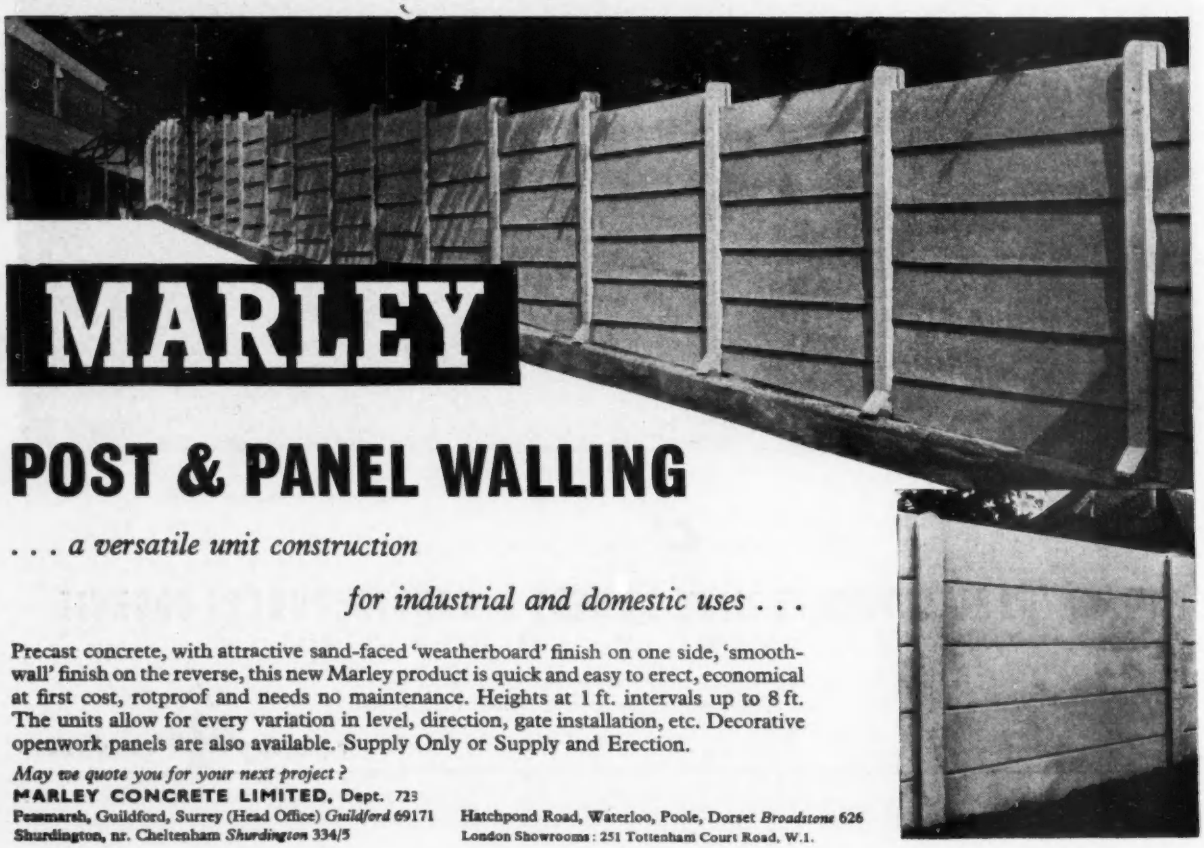

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£1,500, £23,100; Sharoe Green Hospital, Preston, development, Stage I, *£495,000, £4,500, £40,500; Royal Infirmary, Blackburn, ward accommodation, pathology laboratory, extensions to theatres, etc., *£550,000, £4,500, £43,500; Hope Hospital, Salford, maternity unit, *£352,000, £3,100, £33,900; Withington Hospital, Manchester, maternity and plastic surgery units, *£385,000, £3,500, £52,500; Cranage Hall Mental Deficiency Hospital, Crewe, development, Phase II, *£550,000, nil, £48,000.

Wessex RHB.—Alton General Hospital, £111,000, nil, £33,000; Southampton General Hospital, neurosurgical unit, *£480,000, nil, £50,000.

Welsh RHB.—Llanfrecha Grange Mental Deficiency Hospital, nr. Newport, extensions, Stage II, £539,000, £34,000, £200,000; Singleton Park, Swansea, new hospital, Stage II, £1,266,096, nil, £40,000; Bronglaise Hospital, Aberystwyth, extensions, £872,000, nil, £140,000; Oakwood Park Hospital, development, Stage II, £475,000, nil, £60,000; Whitchurch Hospital, Cardiff, radiotherapy centre, linear accelerator, £176,000, nil, £20,000.

The United Bristol Hospitals.—Dental hospital extension and consequential works, £303,650, £4,200, £50,400. *The United Birmingham Hospitals.*—New dental hospital, £1m., £20,200, £100,000. *The United Oxford Hospitals.*—Radcliffe Infirmary, biochemistry and pathology blocks, anaesthetic department, surgery and canteen block, £680,285, £48,320, £140,805. *The United Manchester Hospitals.*—Manchester Royal Infirmary, rebuilding S2 and S4 theatres, £156,283, £26,250, £44,000. *The United Liverpool Hospitals.*—Royal Infirmary, Liverpool, central boiler house, completion of scheme £146,000, £7,600, £89,000.

London Teaching Hospitals.—University College Hospital, new dental hospital, £550,000, £2,500, £126,500; St. Thomas's Hospital, rebuilding, Phase I, £2,449,100, £56,579, £279,600; Hospital for Sick Children, WC1, new X-ray dept., £294,000, nil, £50,000; Hospital for the Diseases of the Chest, Brompton, new building, Fulham Road, £220,000, nil, £7,000; Queen Charlotte's Hospital, W6, extension, £500,000, nil, £19,000.

The total estimated cost of all the new projects less £267,850 contributions from other sources is £41,296,618.

The estimated expenditure by regional hospital boards in England and Wales for maintenance of buildings, plant and grounds in 1960-61 is put at £14,343,000, and by the boards of governors of teaching hospitals at £1,643,000.

The National Health Service estimates for Scotland list 17 schemes (total estimated cost £6,835,400) in progress at December 1, 1959, and Parliament is being asked to vote £1,206,400 towards them. Eight proposed works not commenced at December 1, 1959, are given. Their total estimated cost is £2,602,000; only £69,000 is the probable expenditure to March 31, 1960, and a vote of £346,000 is sought for the 1960-61 financial year. The eight projects are:—

Victoria Infirmary, Glasgow, out-patient department (£320,000); extension to Royal Edinburgh Mental Hospital (£601,000); extension to Mackinnon Memorial Hospital, Boardford, Isle of Skye (£157,000); new hospital, Fort William (£262,000); extension at Randolph Wemyss Memorial Hospital, Buckhaven (£128,000); maternity unit at Yorkhill Hospital (£880,000); theatres and X-ray department, Royal Hospital for Sick Children, Glasgow (£130,000); and maternity unit, Belvidere Hospital, Glasgow (£124,000). £15,000 is wanted for preliminary expenditure on other schemes, £1,505,000 for works estimated to cost less than £100,000 (including fees and equipment) and £300,000 for supplementary plant renewal schemes. Maintenance of buildings, plant and grounds is fixed at £1,100,000.

Comparison of Expenditure

MR. WILLIAM SHEPHERD asked the Minister of Health on April 4 if he would state the estimated value of new hospital building in the years 1935-39 and 1954-58 expressed in 1935-39 prices; and if he would express both the figures as a percentage of the national income.

MR. WALKER-SMITH wrote: 'The figures available for 1935-39 do not permit of accurate computation and comparison but the best estimates that can be made suggest that hospital capital expenditure for the four corresponding financial years was of the order of £32m., or about 0.17 per cent of the national income at the time. The most nearly comparable figures for 1954-55 to 1957-58 are of the order of £57m. and are estimated at about £16m. at the prices ruling in the earlier period and about 0.09 per cent respectively.'

£73m. for Housing

A NET ESTIMATE of £73,588,970 for housing in England and Wales is set out in the Civil Estimates for Housing and Local Government, 1960-61, published on March 29. This represents an increase of £972,300 on 1959-60. Housing in Scotland is estimated at £18,929,580, an increase of £1,108,280. Exchequer grants to local authorities in England and Wales are estimated at £535,275,000, a rise of £79,245,000, with another £69,541,000 for Scotland, a rise of £13,873,000.

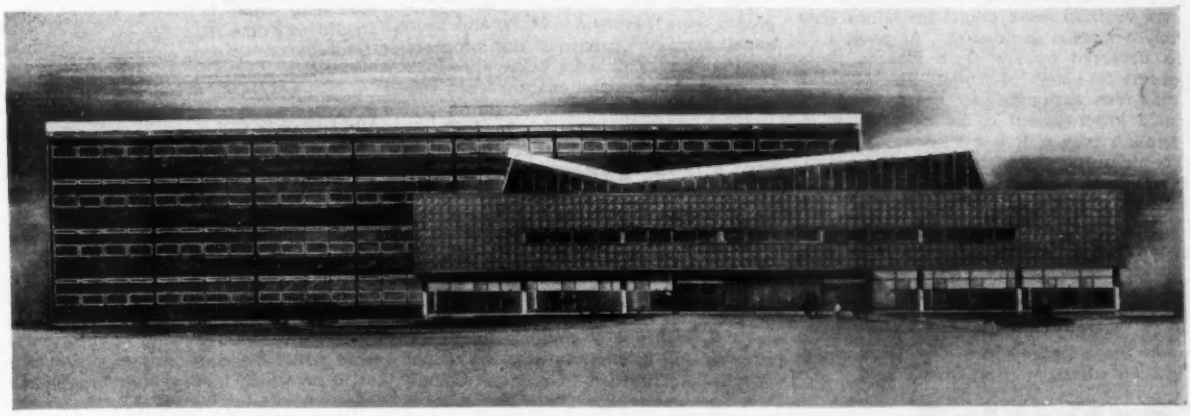
The estimate of £15,523,973 for the Ministry of Housing and Local Government includes £796,000 for coast protection, an increase of £59,200; £9,022,640 for planning and development, a decrease of £3,917,020; and £1,744,000 for water supply and sewerage, an increase of £247,000. Most of the drop in planning is accounted for by lower estimated payments under the Town and Country Planning Act, 1954. The estimate for 1960-61 is £3,291,000—£3,895,000 less than in 1959-60.

In the Housing, England and Wales, estimates, a total of £64,689,620 is allocated for various grants for permanent housing; £6,647,390 for temporary housing and £4,117,000 for emergency housing. £4,000 is to be granted to local authorities and other bodies towards the cost of experimental work on the cure of corrosion in certain new-tradition dwellings in England.

The Offices Bill

A PRIVATE member's measure, the Offices Bill, completed its passage through the House of Commons on April 1 and received its formal first reading in the House of Lords on April 4. MR. DENNIS VOSPER, Under Secretary, Home Office, explained that four changes had been made in the Bill during its passage.

In the clause providing for regulations specifying standards of structure, arrangement and operation in offices, they



The proposed College of Further Education to be built by the West Sussex County Council on a site in Westgate Fields to the south-west of the cathedral at Chichester. The elevations, which are approved by the Royal Fine Art Commission, consist of a two-storey patterned artificial stone building in front of a four-storey block faced with glass and slate. A single-storey workshop is attached to its northern side. A gymnasium is sited to the west and connected to the four-storey block by means of a covered way. A reinforced concrete structural frame, designed by Messrs. Ove Arup & Partners, is employed for the two main buildings and load-bearing brick construction for the workshop. The county architect is Mr. F. R. Steele, FRIBA, FRICS, MTPI, AMIStruct.E., and the assistant in charge of the project is Mr. J. W. Patterson, ARIBA. The estimated cost, excluding moveable furniture, is £470,000

had provided flexibility in the operation of the regulations. The date had been deferred from some time this year to January, 1962. That would allow time for inquiries that might be necessary to be made. It would allow time for consultation, for the preparation of regulations and for the enforcement authorities to make their arrangements. Thirdly, they had sought to secure a fair balance between landlord and occupier and between employer and employee. Fourthly, they had provided arrangements for enforcement and expenditure. The definition office was intended to apply to any office, however small, where the sole use of the room was for office or clerical purposes, but not otherwise.

During their proceedings two unsuccessful attempts had been made to introduce amendments relating to fire prevention. There was substance in the argument and possibly other enforcement provisions should be made in accordance with similar provisions in factory legislation.

Roads Improvement Bill

ON APRIL 11, the Commons debated the Road Traffic and Roads Improvement Bill, a measure giving, among other things, increased powers for the Minister of Transport to deal with traffic congestion in London, and also an extension of existing powers to local authorities to provide parking places off the highway.

The increased powers to the Minister appear designed to reduce 'red tape' and enables swifter application of traffic engineering techniques wherever they are needed. Among the proposals for speeding administrative action is the suspension for five years of the present obligation on the Minister to consult the London and Home Counties Traffic Advisory Committee before making any regulations.

The Bill gives the Minister power for five years to make grants for minor road improvements in London. At present he is debarred by law from making these grants on classified roads. The Minister may also authorise any urgent work of road improvement to be carried out in London even if it is not included in the six-monthly programme of road improvements which he is required to make for main roads in the London area.

The Minister will be provided with power to do works of minor road improvement in London where he is satisfied that they are urgently needed and the highway authorities are not prepared to do them expeditiously. The Bill covers only those improvements which do not involve widening the highway and is to apply for five years.

Under the Bill local authorities will get additional powers to provide off-street car parks. In particular it authorises them to provide car parks in buildings used also for other purposes, and to maintain, equip and manage buildings accordingly. It widens their powers to let land on which a car park is to be provided, and allows them to provide facilities for the sale by some person of petrol and oil. The powers to allow composite development (buildings used for car parks and other purposes) have a life of five years and are subject to approval by the Ministry of Transport.

The Budget Debates

THE DEBATES on the Budget in the House of Commons throughout last week were notable for the disapproval and disappointment loudly voiced by some Conservative MPs, notably an outspoken attack by MR. GERALD NABARRO. Not unnaturally the Opposition were quick to taunt the Chancellor, but MR. F. M. BENNETT, a Government back bencher, assured them that it was a gross perversion of the truth to suggest that the whole of the Conservative Party was hostile to the Budget and the Chancellor.

The main Opposition attack was launched on April 6 by MR. HAROLD WILSON, the 'Shadow Chancellor,' who explained that the Opposition considered the Budget a social failure. Everyone knew the tragedy and hardship of overcrowding and of broken homes yet the Chancellor refused to restore the Government housing subsidies. It would cost no more than what he gave up in the reduced duty on port.

On the economic side, the tragedy was that because of the neglect of investment our industrial base was still so inadequate that after only one year of expansion the Government had taken fright and begun to apply the brake. The tragedy was that the brake was being applied just as investment in manufacturing industry was beginning to recover. It was because the Government could find no means of restraining the City and because acquisitive interests in the City could not restrain themselves, that they had had to put the brake on the economy as a whole and productive industry, and urgently needed capital investment, had had to be sacrificed to an uncontrollable speculative boom.

For those who owned land the capital profits were fantastic. More and more newly married couples in this property-owning democracy were being priced out of the market by land charges when they wanted to build on the outskirts of large towns and cities. As for land in the centres of big cities, he was told that to build a 10-storey garage in Central London—knowing how expensive it was to build such a garage in Central London—cost less than the money which had to be laid out to acquire the site.

MR. REGINALD MAUDLING, President of the Board of Trade, said the prospects for 1960 and 1961 were clearly a further vigorous expansion of trade, business and prosperity. Consumption, investment and exports were all likely to expand. Education, roads and the financing of local employment were essential investments in the economy and necessary to put Britain in the position to earn in future the revenue and wealth they ought to earn.

By the Local Employment Act and help for the expansion of the steel industry they were trying to find ways and means of spreading our capacity. By and large our resources would be fully employed in the expansion that would take place anyway without any further stimulus from the Exchequer. Therefore, any net tax reductions would create demand in excess of the available resources. It would be folly to cast away stability of prices by trying to push the expansion one degree too far. Surely the lesson must be that a restraining Budget was a small price to pay for stable prices and a strong balance of payments.

He did not think that the Profits Tax would have any effect at all on the level of industrial investment which was at the moment buoyant, high and very encouraging. He thought the level of industrial investment would be determined by the manufacturers' prospects of selling their products and that they would be more certain of their future prospects when they saw a cautious and prudent Budget like that introduced by the Chancellor.

MR. GERALD NABARRO wanted to see the whole Profits Tax abolished together with investment and initial allowances. The total cost of abolishing the tax would, he contended, be approximately offset by the abolition of capital allowances to industry. He had always been sceptical of the value of initial and investment allowances. They were of dubious benefit except only to a small, impoverished and struggling firm, and in one or two special cases, such as shipping. He advocated more powerful control over Government expenditure.

MR. ROBERT CARR, a former Parliamentary Secretary to the Ministry of Labour, said he shared with other Government supporters a desire for economy, but he asked members to reflect on the kind of expenditure the Tory Party should now support.

There were certain sections of expenditure which could never be undertaken by individuals. The individual could never build hospitals, roads, homes for elderly people, schools and universities. To the extent that Government expenditure had risen in these sectors, they should welcome it.

Other Business

The Easter Recess

THE HOUSES OF PARLIAMENT adjourned for the Easter recess on April 14 and will resume on April 26.

Clyde Graving Port

DR. J. DICKSON MABON asked the President of the Board of Trade, on April 7, following the recent conversations between the sponsors of the projected Clyde Graving Dock and the Development Areas Treasury Advisory Committee, if he would make a statement of the Government's intentions.

MR. JOHN RODGERS, Parliamentary Secretary.—'The provisional offer made to the sponsors last autumn has now been confirmed. If the sponsors proceed with the project, financial assistance will be available in accordance with the terms arranged between them and the Treasury.'

In answer to another question, MR.

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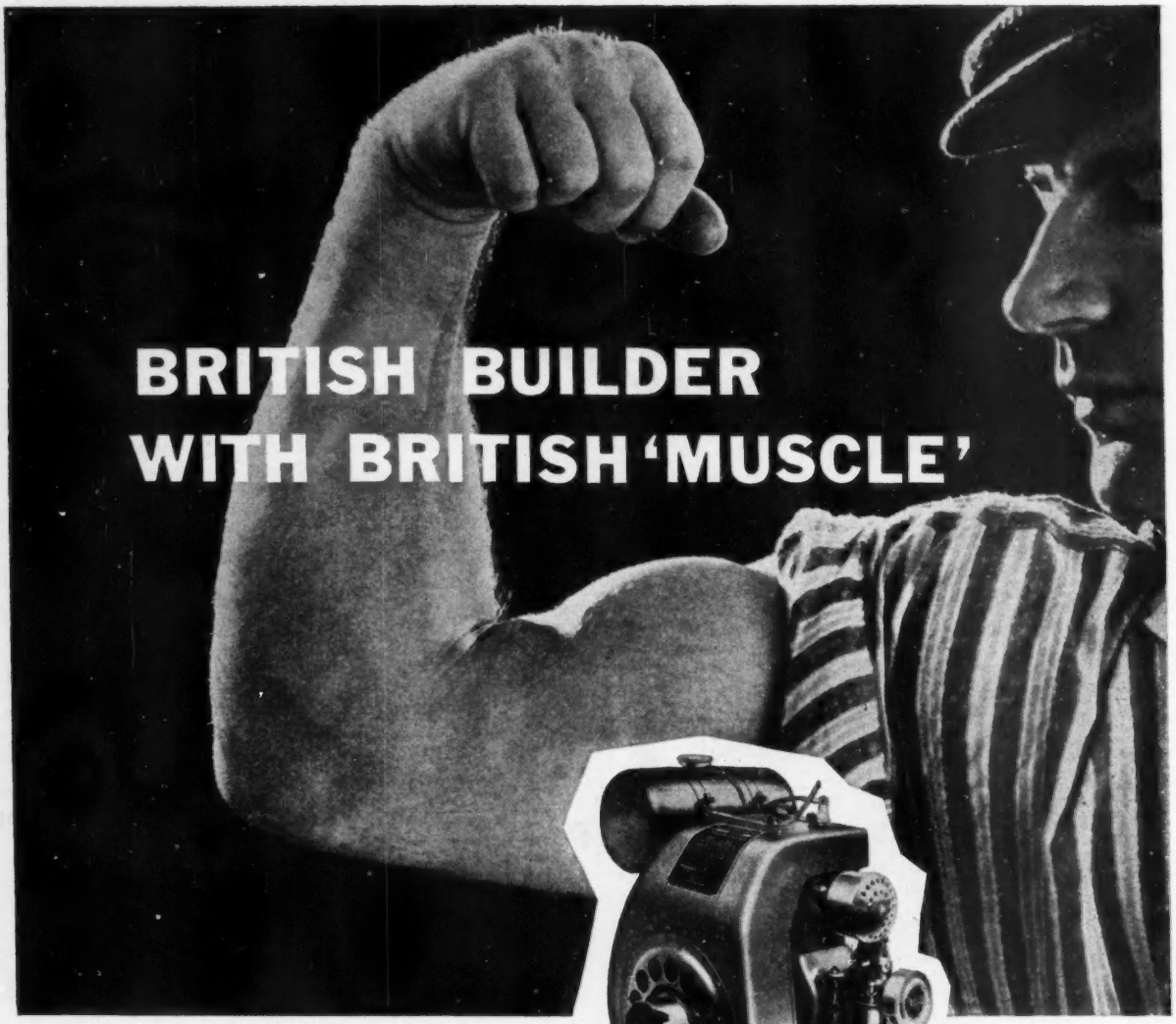

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JOHN RODGERS told Mr. Grey.—'The President, BOT, is in close touch with the Pressed Steel Company and understands that they have now acquired a site between Jarrow and South Shields on which a factory will be erected to employ initially some 500 men, rising to 1,000.'

Use of Kingsway Tunnel

MR. H. HYND asked the Minister of Transport on April 6 to announce his plans for the use of Kingsway Tunnel.

MR. ERNEST MARPLES wrote.—'The London County Council propose to adapt the southern part of the tunnel as an underpass for light traffic between Waterloo Bridge and Kingsway. It is expected that the greatest advantage will be obtained by making the underpass one-way from south to north. I hope to include the scheme in the road programme at an early date.'

US Investment in the UK

MR. ANTHONY BARBER, Economic Secretary to the Treasury, wrote in reply to Mr. Kershaw on April 5.—'According to information at present available net private long-term investment by the United States in the United Kingdom was about £75m. in 1959 and £60m. in 1958; the corresponding figures for Canada were £15m. and £10m. respectively. UK net private long-term investment in the US is estimated at £10m. in 1959 and £20m. in 1958, while such investment in Canada was about £30m. in each year.'

No Fylingdales Inquiry

No arrangements are being made for a public inquiry at which objectors to the Fylingdales project can be heard. MR. GEORGE WARD, Secretary of State for Air, said in a written reply on April 6 that such an inquiry would mean disclosing the detailed criteria which determined the siting, and this would not be in the national interest.

He added: 'The layout and appearance of the station have, however, been fully discussed with the planning and amenity bodies concerned, and agreement has been reached with the local planning authority on all major points.'

For the design of the ballistic missile early warning station on Fylingdales Moor, the Air Ministry are employing an eminent firm as main consultants, said MR. W. J. TAYLOR, Under Secretary of State for Air, when he replied to a debate on this station on March 25. He added that in turn, this firm would be employing a well-known landscape expert who would work closely with them and the Air Ministry from the first conceptions of the development. The selection of the landscape consultant had been approved by the National Parks Commission.

Anti-Dazzle Screen on M1

MR. ERNEST MARPLES, Minister of Transport, said on March 30 that the experimental length of anti-dazzle screening on M1 apparently gave satisfactory protection from glare, but before he could decide whether screening must be extended he must consider other factors, including safety, amenity and cost.

Survey of Historic Buildings

MR. ROBERT COOKE asked the Minister of Housing and Local Government on March 29 what steps had to be taken between the completion of the investigator's survey and the issue of a statutory list under Section 30 of the Town and Country Planning Act, 1957: and whether he was satisfied with the rate at which lists were now being issued.

SIR KEITH JOSEPH, Parliamentary Secretary, wrote.—'A provisional list based on the investigator's report is sent to the local authority and to preservation societies, and their comments are considered. The name and address of the owner and occupier of every building on the list has to be obtained and they are given an opportunity to make representations. Progress with this very large task is restricted by the need for economy in staff. There was a substantial increase in the number of lists issued in 1959 and the Minister hopes for a further improvement this year.'

Architects in the Housing Ministry

COMMANDER DONALDSON asked the Minister of Housing and Local Government on March 29 how many qualified architects were employed on his staff who were unestablished and who had been so employed from 10 to 15 years; and if it was now his policy that they should be established.

MR. BROOKE wrote.—'Five, all of whom in accordance with general Civil Service rules have had opportunities to compete for established posts.'

Decisions on Inquiries

MR. FLETCHER-COOKE asked the Minister of Housing and Local Government, on March 29, what was the average length of time elapsing between the hearing of planning and compulsory purchase inquiries and his decisions thereon for the years 1957, 1958 and 1959.

MR. BROOKE.—'For compulsory purchase orders confirmed in 1957, 1958 and 1959, the average times were 12, 15 and 16 weeks respectively. For planning appeals I regret that I cannot give a figure for 1957, but the average in 1958 was 11 weeks and in 1959 10 weeks.'

MR. FLETCHER-COOKE asked the Minister to devise a system whereby developers got their answers a little earlier. MR. BROOKE said that with planning appeals they were cutting down the time even though they were having to deal with a rapidly rising number of them. Many compulsory purchase orders were slum clearance cases and these must be examined carefully to ensure justice to all concerned.

Car Park Under Hyde Park

SIR WAVELL WAKEFIELD asked the Minister of Works, on March 29, what progress he had made in his consultations with the Minister of Transport about the provision of an underground car park in the north-east corner of Hyde Park.

LORD JOHN HOPE wrote.—'The Minister of Transport and I have examined the problems of amenity and the need for statutory provision likely to arise from such a project, and are now satisfied that these are capable of solution. Mr. Marples is now looking further into the technical and economic aspects.'

Birmingham Expansion Rejected

MR. HENRY BROOKE, the Minister of Housing and Local Government, announced in a written reply on April 5 that he had decided to reject the application by Birmingham City Council for planning permission to develop 4,200 acres in the Wythall area for industry and housing.

He had done so, he said, on the ground that the development would mean a serious incursion into land which ought to form part of the green belt round Birmingham. He added: 'Such development may prove unavoidable if no other way can be found to meeting Birmingham's great need. But I am not convinced that decentralisation of industry and housing beyond the green belt is impracticable. In the letter conveying my decision, I have offered to discuss with the authorities concerned ways and means of accelerating provision for this movement of people and industry out of the city. It have also made it clear that the decision does not imply that in my view all the land contained in the application ought necessarily to be included in the green belt.'

London County Council

Kensington High-street Development

THE QUESTION of the development of the site at nos. 2-24 (even) Kensington High-street was raised by MR. R. VIGARS, at the meeting of the London County Council held on April 5. Mr. Vigars wanted to know more precisely what the chairman of the town planning committee had in mind when he indicated (in a reply on March 22) that the committee would be ready to consider a less intensive development of the site.

MR. R. EDMONDS replied: 'Pending receipt of the views of the Minister of Housing and Local Government, to which I referred in my previous reply, it would be premature to go into detail at this stage. I can say, however, that what the committee has in mind is a building which, while lower than that proposed, would be somewhat higher than existing buildings but would give a lighter and more open effect.'

LCC New Town

IN CONNECTION with the preparation of an outline planning application for an LCC New Town in the vicinity of Hook, Hampshire, specialised advice is needed on the alignment of the proposed new trunk road to Exeter and on traffic and civil engineering problems associated with the planning of the new town generally. Because of the pressure of work caused by the LCC's road improvement programme, the Housing Committee propose to seek such advice from a firm of consulting engineers.

Development Near St. Paul's

City Corporation in Land Exchange

A NUMBER of reports and recommendations in connection with the rebuilding of a new International Headquarters for the Salvation Army in Victoria-street and on adjoining properties, were before the Court of Common Council at its meeting in Guildhall on April 7.

The Improvements and Town Planning Committee reported that in connection with the project, negotiations had taken place with a view to agreeing terms for an exchange of land to enable development to proceed wholly on the east side of the St. Paul's Cathedral precinct. This would facilitate the development, by the Corporation, of the site on the west side of the precinct in harmony with Sir William Holford's proposals.

The Court approved a recommendation that, subject to Ministerial consent, terms giving effect to the exchange be agreed to. The land to be transferred to the Salvation Army consists of war-damaged sites known as 97 and 99 Queen Victoria-street, 6, 7, 7a and 8 Lambeth-hill, 215, 216, 217, 217a and 218 Upper Thames-street, and 1 and 2 Brooks-yard.

In exchange the Corporation will receive property to the west side of the St. Paul's Vista in Queen Victoria-street, plus £87,500, 'by way of equality of exchange.'

The new Salvation Army headquarters was mentioned in a further report from the same Committee. It recommended purchase, by agreement, for £190,000 of the freehold interest of 77, 77a, 79 to 81 (odd), 81a and 83 to 95 (odd) Queen Victoria-street and 11 and 12 Lambeth-hill.

The Court approved the proposal after hearing that the acquisition was necessary in order to achieve the satisfactory redevelopment of the area bounded by Queen Victoria-street, Huggin-hill, Upper Thames-street, and the new Salvation Army building. The area will eventually be formed into a redevelopment unit.

Another recommendation approved was that the freehold interest of a site bounded by Gutter-lane, Goldsmith-street and Wood-street should be sold to the Worshipful Company of Goldsmiths for £250,000. The Company will be given the benefit of a conditional planning permission for the erection of an office building on a site of approximately 12,000 sq. ft.

The major part of the site had been acquired from the Company in 1954 for police purposes after the service of a purchase notice. The re-sale of the land results from the Corporation's decision not to develop it as a police station.

Drawings Agreed

The Court approved drawings, submitted in compliance with the conditions of permission already granted, in the following cases:

61 to 67 Holborn Viaduct and land at the rear situated over the disused railway station at 37 to 44 Snow-hill—multistorey office building (permission granted July 24, 1958);

St. James's-court, 16 to 22 (even) Heneage-lane, part of Heneage-lane, 1 to 4, 31 and 32 Bury-street, 9 to 15 (odd) and part of 17 Creechurch-lane—seven-storey office building (April 9, 1959);

Parts of 5 to 8 Bow Churchyard, 78 Watling-street, 58 to 60 Bread-street and Star-court—new office building (March 19, 1959).

*** A report of an earlier meeting of the Court of Common Council is on page 754. —ED.

Garages in Gardens

Councils Seek More Power Over Erection

BOROUGH COUNCIL representatives and Ministry of Housing and Local Government officials are to discuss a proposal that councils should have more power to control the erection of garages in the curtilage of houses, writes a correspondent.

The Association of Municipal Corporations' town planning committee say they have considered a suggestion from a member authority that a general power should be given to local authorities, reinforcing their existing powers under planning and public health legislation, to prevent the erection in front gardens of portable or semi-portable framed structures for the housing of motor vehicles.

In 1956 the Association made representations to the Minister that the General Development Order should be amended to provide that planning permission should be required for erection of a garage within the curtilage of a dwelling unless sited at the rear, but the Minister would not agree.

In 1953 they considered the problem of parking of commercial vehicles within the curtilage of a dwelling-house and discussed it with the Ministry, but without any conclusive results.

The committee now state: 'There is today an increasing problem arising from the parking of vehicles on the highway, and we propose to seek a discussion of the whole matter with the Ministry.'

Builders' Benevolent Institution

One Hundredth Annual Dinner

THE RELATION between the functions of his department and the *raison d'être* of the Builders' Benevolent Institution was the link which gave the Minister of Works an interest in its activities. The analogy was made by LORD JOHN HOPE when he proposed the toast of that noble organisation and its president on the occasion of the 100th annual dinner held on April 5 at the Dorchester Hotel, W1. The president, Mr. P. Fotheringham-Parker, FIOB, was in the chair.

'When a building has outlived its usefulness,' said the Minister, 'it may be the job of a successor of mine in perhaps 500 years' time to look after it. In a similar way your institution looks after the welfare of master builders who have been instrumental in erecting these buildings and who have suffered misfortune.'

Referring to the recent budget proposals the Minister said he could not claim them to be examples of a benevolent institution. 'The Chancellor,' he continued, 'mentioned in his speech the high rate of building this year and added a warning that the Government may impose some restraint on future activity. Individuals can help to avoid this by not inflating prices.' In conclusion Lord John Hope congratulated the Institution on the recent extension of its activities outside the London area and expressed the hope that the traditional good work would continue far into the future.

The PRESIDENT, submitting the response, thanked the Minister for his kind words and for his interest that evening in spite of the obvious pressure of work in connection with the State visit of the French President. Referring to his annual appeal he said that it had so far produced donations to a total value of £1,605 13s. 'May I express the hope,' he continued, 'that it is only a beginning and that by the end of the year I shall be able to report a record response. There is, however, no purpose in accumulating large sums of money unless we are able to use them for the charitable work for which the Institution was founded, and a very important aspect of the appeal therefore, is that we shall be brought into contact with master builders and their dependants who are in distressed circumstances.'

The toast of 'The Guests' was proposed in a delightfully unconventional way by MR. E. J. COOK, BSC, MICE, FIOB, president of the LMBA. MR. D. E. WOODBINE PARISH, FIOB, president of the NFBTE, submitted the response.

Council's Objection to Householder's Fence

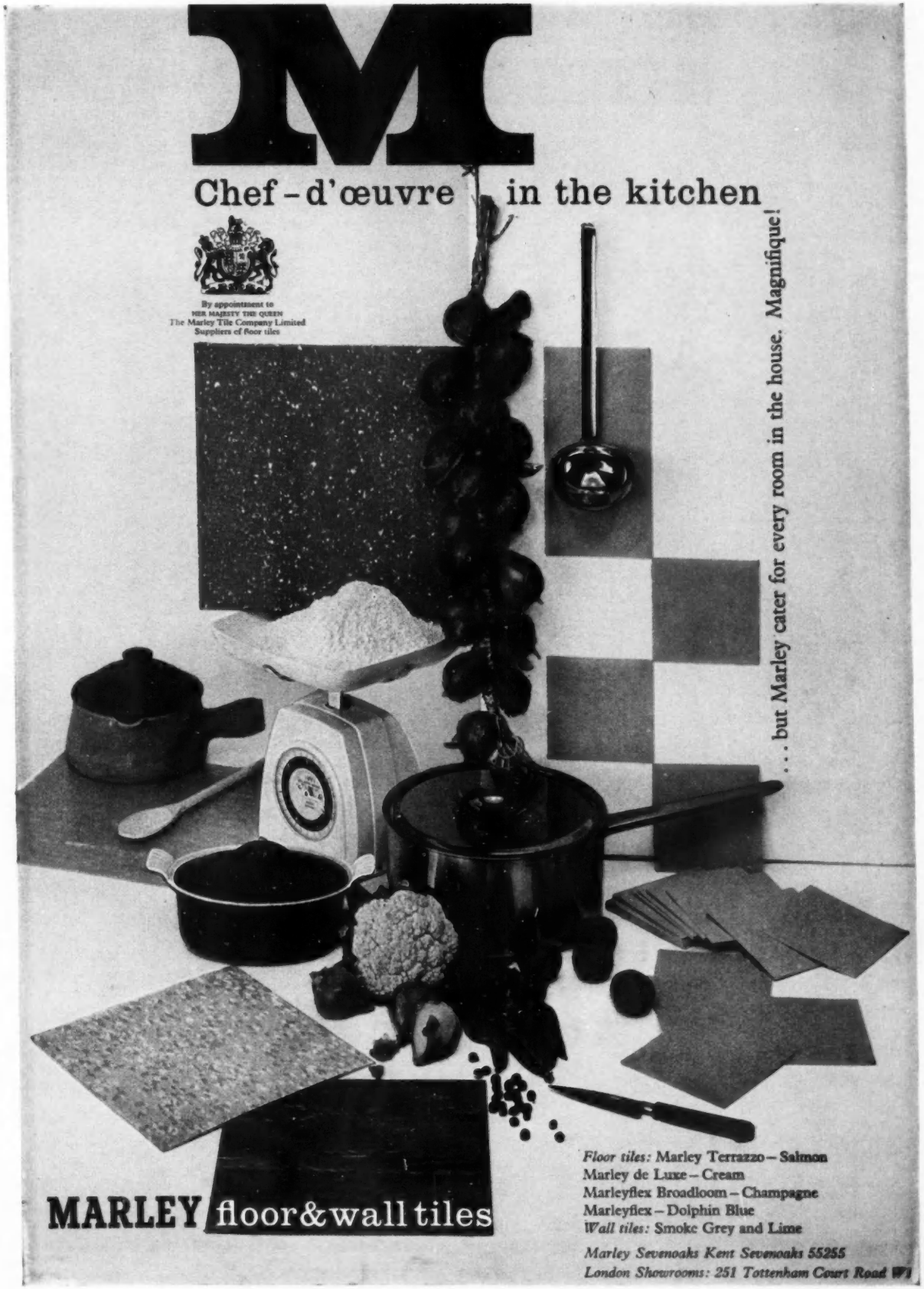
Public Inquiry Held

TO OBTAIN a little privacy, Mr. E. H. Hendriks, of Manor-road, Wallington, sought to build a fence surrounding his garden. Beddington and Wallington Council refused permission for this, and a public inquiry was held at Wallington Town Hall on March 29, when Mr. Hendriks appealed. Local residents supported Mr. Hendriks's appeal, protesting against the noise and unsightliness of a tyre firm opposite the house.

MRS. HENDRIKS said she could not sit in her garden because of this nuisance but she also wanted to protect her child from the busy main road. She maintained that unless a fence was erected, it was possible that the child would run into the road and a serious accident might occur.

The fence it was proposed to install would be between 8 and 9 ft. high, and the council had refused permission on the ground that a fence in this position would detract from the amenities of the district if it were built in a row of houses planned without fences.

MR. A. J. BROTHWELL, deputy clerk to the council, stated the council's views. The Minister's decision will be announced in due course.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Better Insulation for Cavity Walling and Roofing

Developments in the Use of Plastics Foam

THE BASIC PRINCIPLE of filling cavity walling with a plastics foam which hardens rapidly and converts the wall into a sandwich possessing remarkable thermal qualities, is one which must appeal immediately to the architect.

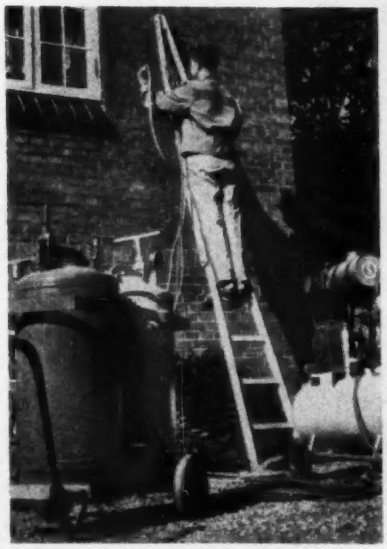
True, the first reaction might well be one of doubt, since the whole purpose of a cavity appears at first sight to be nullified by the act of filling it. 'Fill a void and it is no longer a void.'

Yet sandwich walling has long been standard practice in America, and when it is remembered that the use of urea formaldehyde as a cavity filling is becoming increasingly common in Scandinavia and Europe generally, it may well be that we must view cavity walling in a completely new and highly promising light.

There has already been some important research into the province of cavity filling. The Building Research Station, in concert with the London Brick Company carried out extremely interesting tests with glass fibre filling and considerable improvement in the measured 'U' value was at once apparent.

However, because glass fibre is hygroscopic to a degree, it could hardly be claimed as an ideal filler and there was always the chance that the cavity might be bridged by moisture in badly exposed conditions. Now there is news that the firm of Thermalon Ltd. have produced a method of injecting urea formaldehyde into cavities in the form of a rapidly setting foam.

According to preliminary tests carried out by the Building Research Station, the material is resistant to wetting—despite the fact that it is cellular in formation with a fair proportion of connected cells. A sample of filled cavity walling withstood a severe test designed to discover whether driving rain could, in fact, bridge the gap. Further tests are proceeding.

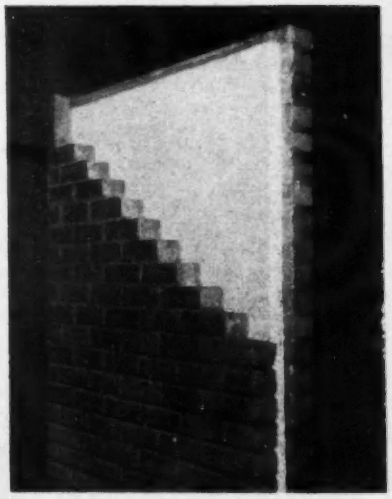


Injecting the foam

The weight of the plastic, which is to be known as Thermalon, is not more than ½ lb. per cubic foot. Because of its extremely light weight, it is thought that it will have a special application for portable buildings to be used in exceptionally cold climates.

Its k value is stated to be 0.21 so that under ordinary conditions of construction, an 11-in. cavity wall with an inner skin of insulating blocks would have a 'U' value of between 0.08 and 0.10—a remarkable achievement.

Since the material supplied and fixed by the manufacturers costs about 6d. a square foot for a 2 in. cavity, and can be injected under pressure into existing cavities through easily drilled access holes without affecting the appearance of a building, its importance is at once apparent. The average small house of about 1,000 sq. ft. in area would cost something like £35 to treat.



Cutaway section of wall showing 'Thermalon'-filled cavity

The estimated saving in heat losses, consequent upon treatment, has been calculated as being in the region of 200 to 300 therms per annum, and whether the saving is taken in reduced fuel or increased comfort conditions its use would appear to be economically sound.

But what is perhaps less apparent is its welcome 'correcting' qualities. Cavity walling, designed in the first place to prevent moisture crossing from external to internal surfaces, has as it were, only incidentally, an improved 'U' value over 9 in. solid brickwork because it happens to contain 'still' air. But too often this theoretical advantage is largely nullified by the failure of the builder to close the cavity at window and door jambs, or at the top of the wall at roof level. In addition, he may leave any number of open joints and weep holes. Immediately these inlets and outlets occur, the speed of currents within the cavity is increased, and the 'U' value ascends with a jump.

The injection of a plastics filling into such walling at once acts as a seal, cutting off draughts and indicating in the form of foam tell-tales where there has been sloppy craftsmanship.

But even where the cavity walling is of a high standard, convection currents within the cavity will be set up during cold weather simply because the inner wall will be warmer than the outer skin. At once, the insulating requisite of 'still' air is appreciably reduced.

Insulating a prefabricated cavity with 'Thermalon'

Naturally, the material must be used intelligently. For example, where a cavity wall has been used for a small house, one might be tempted to expect to find a better type of construction generally. Unfortunately this is not always true, and so any firm proposing to carry out a cavity filling operation must be assured that their supervisors have a sound knowledge of construction and a body of experience behind them. Thus it would be unwise to hope at this stage that the injection of a plastics will improve defective damp-permeated construction, despite the material's strong resistance to wetting, and the success which it is claimed has already crowned attempts to cure existing dampness in a proportion of the 20,000 cases tackled abroad. Obviously, as more and more experience is obtained of our indigenous conditions, the scope may well increase.

Not a Panacea

In the meantime, we must resist the usual tendency so often evinced when a new material or method of construction is announced, to hope that it will prove a miraculous panacea for all existing evils, for not only drowning men, but harassed householders clutch at proferred straws.

It is therefore encouraging, I feel, to find that the manufacturers intend to guarantee their work fully. We can thus be reasonably certain of a conservative approach to a revolutionary advance.

The use of urea formaldehyde is not to be restricted to cavity walling. It has an obvious application for roof insulation. If what has been said about the foam's ability to seek out defects in a cavity wall is true in a high percentage of cases, the opportunities must be even greater when dealing with the roof space.

Few houses are not 'draughty' by the eaves, and it is here that the plumber has so often seen fit to lay his most vulnerable pipes, ready to freeze at the first touch of frost.

Injection of Foam

Foam can be injected between the joists and can reach positions not easily accessible, there to set rapidly. True, some care must be taken in existing houses, where pipes are 'all over the place,' for although it is easy if impractical to cut away the foam, one might easily lose the position of cable runs and other services. Fortunately, it is often possible to regroup existing services in one long channel which can then be covered with sheet foam cut to length.

The insulation value of 2 in. of the material laid between the ceiling joists and covered with perhaps a chip board can result in a 'U' value lower than 0.12.

Urea formaldehyde is not suitable for placing beneath a concrete slab, either for overall ground slab insulation, or the edge insulation so essential in the case of electric floor warming. Here I think polystyrene must have an obvious advantage: indeed it has been used successfully by Mr. Bruce Martin for the under-floor insulation of the BRS laboratory. With its heavier density, the polystyrene shows a smaller compression.

The improved efficiency of the modern, solid fuel boiler, or the considerable advantages of oil or gas fired boilers in reducing labour, need not be discussed here, nor need we elaborate upon skirting heating, small bore piping or conducted warm air systems except to point out that all have one thing in common: every user—or nearly every user—would like to reduce the quantity of fuel consumed. Sad to relate, in some cases the consumer would be happy to pay the cost of his particular fuel, if only the resultant efficiency in the form of comfort were to be his. Indeed, he must pay for heat he does not use because he is doomed to live in a sieve.

But the use of light-weight material transforming his walls into a sandwich of high thermal resistance, and his roof into a warm bonnet, must make the architect's task easier. Thus we have as a profession, given a hearty welcome to electric floor warming which enables us to reduce capital costs in certain cases. We have appreciated that therm for therm, even allowing for flexibility and buying current at cheap, off-peak periods, electricity is more costly than other fuels, but we have argued, rightly I think, that this extra cost was adequately cared for by the interest saved on capital reductions.

Reducing Cost of Heating

If, however, we can obtain an overall 'U' to walls and roof of 0.10 or thereabouts, by the use of urea formaldehyde and polystyrene, the price of all forms of heating must be reduced and as the price is reduced so the differential cost between different fuels is also reduced. Electricity then becomes just 'a little *less cheap*' than other fuels.

Alternatively, we may ignore our suppressed desires for the abundant use of double glazing we should so often like to include, but which is so often thrown out of the specification in the last instance when a client insists upon our finding capital cost reductions.

If, however, architects can persuade those who build that the first consideration must be the conservation of heat, we shall find that such materials as I have discussed will not only give us increased comfort to a degree we have not hitherto experienced, but may also leave us a little extra in the kitty for buying double glazing to effect further economy.

ERIC AMBROSE [FRIBA].

The new United States Embassy Chancellery in Grosvenor-square, London, before the erection of the aluminium Eagle which has been the subject of considerable controversy recently. Architects are Eero Saarinen & Associates, in conjunction with Yorke, Rosenberg and Mardall

Obstacles to Original Design

Hostility Towards the Unorthodox and the Case Against Aesthetic Control

The problems of control and the inherent prejudice against original or unorthodox design resulting in uniformity and lack of contrast, were discussed by Mr. Peter Moro, FRIBA, at the one-day conference on 'Homes of the Future' sponsored by the Federation of Registered House-Builders and held at the National Federation of Building Trades Employers' headquarters in London on March 24. Mr. Moro felt very strongly against any form of aesthetic control which, he said, stifled architectural expression, made nonsense of the architect's professional status, gave undue power to lay officials, and rarely stopped bad conventional building. Extracts from his paper are given below

PREJUDICE towards new ideas strongly affects the sort of buildings we get and is at its fiercest when it comes to house design. Serious design in architecture is never a question of fashion. The reason why a house today must inevitably look different from that of yesterday arises from the fact that the conditions governing both life and building today are vastly different from those of the past. A good architect will recognise this and produce a fresh solution to a new problem with an open mind. Of course, every educated person is conditioned by his environment and I am not suggesting that one should ignore the past.

The problems with which we are confronted are almost invariably without precedent and cannot be solved by stock solutions. Nobody would quarrel with this when designing factories, schools or hospitals. But it is not just industry, education and medicine that have undergone enormous changes; life at home, whether we like it or not, is vastly different from that of 50 years ago. There are new materials and new techniques of building—surely it would be foolish to ignore their existence when they can help to solve our problems.

Why this reluctance to change when it comes to house design? What are the reasons for this? What are the obstacles to original design in houses?

Let us assume the architect is capable of original thought—will his client let him translate it into original design? Very often not. It is a curious phenomenon that modern architecture is still considered unsuitable for house design. It is ludicrous to what lengths and expense people will go to give their new houses the 'old look.'

Wealth and Taste

Another curious fact is that wealthy clients do not always want original houses, and those who do often cannot afford them. I am not saying that original design is bound to cost more than the conventional, but there is no doubt that the wings of fancy are severely clipped if every penny matters. Economy, of course, is just part of the new condition requiring a new solution. This challenge, of giving value for money, and the illusion of space when one cannot actually afford it can, to my mind, only be met by ingenious and unorthodox design.

Next, let us assume you have found an intelligent forward-looking client who wants you to build him a contemporary house, but who has to get a mortgage to finance it—you are in trouble again. Although I do not wish to labour the point unduly, it is a fact that many, if not most, building societies view a modern house with hostility and often refuse loans for anything which is out of the ordinary. As most prospective house-owners rely on a mortgage from a building society this attitude has a devastatingly retarding effect on original design in this country.

Aesthetic Interference

When this first hurdle is overcome there is next the question of aesthetic control. As you know, every design has to be submitted to the relevant local authority for by-law and town-planning approval. As long as these deal with matters of safety, hygiene, building lines or zoning, and so on, they are good and necessary. Without such controls there would be chaos. But there is no possible justification for aesthetic interference and it is quite irrelevant whether such aesthetic interference is administered by laymen or by experts.

The case for aesthetic control and how it can work in practice has never, to my knowledge, been made. Any control based on theories, however praiseworthy, which in practice depends on the personal prejudices of those empowered to enforce it, is unworkable.

For the following reasons alone the case against aesthetic control in any shape or form is overwhelming: 1. It stifles architectural expression. 2. It encourages uniformity and discourages contrasts. 3. It causes hardship to those affected, client and architect. 4. It usually discriminates against those who are exercising their traditional right of wanting to live in a house of their time. 5. It gives undue power of judgment to officials lacking aesthetic training. 6. It smacks of totalitarianism and is, in fact, a characteristic adjunct of such a form of government. 7. It is humiliating to the architect and makes nonsense of his professional status. 8. It puts those architects into an invidious position who lend themselves to the distasteful task of sitting in judgment over their colleagues. 9. It rarely stops bad conventional building. 10. It often stops good unconventional building.

As we are dealing here with matters of taste, it is not surprising that the attitude towards design varies from one authority to another. Very often pressure is put on the local authority by the local preservation society. This country is full of preservation societies and other bodies who claim to be capable of successfully controlling our aesthetics. Aesthetic control in any form is a menace. It has not worked in the past and it will not work in the future.

Of course, we must prevent acts of vandalism and, wherever possible, fight for the preservation of scheduled and worthwhile buildings. Nobody would quarrel with that. What are dangerous and intolerable, however, are the arrogant attempts by backward-looking ladies and gentlemen to obstruct the healthy renewal and development of our environment.

Many young, and not so young, architects who believe that each period brings its own problems and who try to solve these by the new technical means at their disposal, as architects have done throughout history, can give instances where they have been obstructed and often altogether prevented from doing what is, after all, only sane and sensible. The people who have the power to control and influence architectural development in this way are usually laymen who are agreed among themselves that everything which is familiar, however bad, is to be passed and that everything which is unfamiliar, however good, is to be stopped. You will agree that, put like this, it sounds too ridiculous to be credible. But this is a perfectly fair description of what is happening all around us. The results speak for themselves.

For anyone with an unprejudiced mind and eyes to see, the results prove that aesthetic control is not only impractical but also bad. You have seen the stimulating charm of contrast and the often deadly effect of monotonous similarity. A healthy society produces a healthy architecture and only a living and ever-developing architecture is healthy.

The Builder's Problem

I have tried to give you some of the reasons why there is so little original design with particular reference to domestic architecture. There are other reasons, such as our climate and industrial atmosphere which, although not obstacles, make it much more difficult to design an interesting house in Manchester than in California. Perhaps more important is to discover whether the building industry can deal with original house design. I admit that the construction of individual tailor-made houses is a tiny and comparatively unimportant problem. To find sites for such houses is becoming more and more difficult.

I am still looking for the builder who likes to do the unorthodox, is not so frightened by originality that he automatically puts his price up to cover himself just in case, and who can deal with the inevitable lack of continuity of trades in such a job.

Building in the City

Details of New Cannon Street Station Approved

THE COURT OF COMMON COUNCIL at its meeting on March 24, in addition to approving a rebuilding scheme near St. Paul's (reported in 'The Builder' of April 1) also approved the drawings and details of materials submitted for the new Cannon-street Station. The new station, with office blocks, shops, a restaurant, engineers' drawing office and laboratories, will be between Cannon-street and Upper Thames-street and 9 to 11 Bush-lane (Estate and Rating Surveyor, Southern Region, British Railways).

Also approved was a multi-floor car park, with workshops, a petrol filling station and a car sales showroom. It will occupy 158 to 170 Aldersgate-street, 1 to 5, 16 to 22 and part of 6 and 11 to 15 Manchester-avenue, part of Queen-square, and 5 and 6, parts of 1 to 4 and 7 Queen-square, Bowmans Buildings, 3 to 6 and parts of 1 and 2 Half Moon-court and parts of 30 and 31 Bartholomew-close (Oscar Garry and Partners, 66 Gloucester-place, W1).

Drawings Approved

Drawings and details of materials were also approved for the following developments:

Erection of an office building including licensed premises, a bank and a retail shop at 10, 11 and 12 New Bridge-street, 1 Bridewell-place, and 14 Bride Lane (Shingler and Risdon, 47 Bedford-row, WC1);

Erection of a new building for use as offices, with shops on the ground floor of the wing fronting Watling-street, at Aldermary House, 10 to 15 Queen-street, 58 to 66 Watling-street and 2 and 3 Well Court (Fitzroy Robinson & Partners, 3 Grays Inn-square, WC1);

Erection of an office building, comprising basement, ground and five upper floors, with car park and storage in the basement, at 1 to 3 Smithfield-street (R. Seifert and Partners, 28 Great Ormonde-street, WC1).

Erection of a new building for use as offices, showrooms, a dental surgery, shops, on the ground floor and one licensed premises and a basement car park at Moor House, 49 to 53, and 61 to 71 Fore-street, 19 to 27 (odd) Fore-street Avenue, 1 to 15 Moorfields and part of Fore-street and Moorfields (Lewis Solomon, Kaye and Partners, Thavies Inn House, Holborn Circus, EC1).

Rebuilding for use as offices, with the elevation matching the rest of the terrace, of 10 and 11 The Crescent, Minories (C. Fisher and Associates, 56 Portland-place, W1).

The Court also decided to permit the erection of a six-storey office building with storage in the basement at 8 to 12 Warwick-lane and 21 and 22 Warwick-square (Victor Heal and Partners, 14 Grays Inn-square, WC1).

A building lease of a site bounded by London Wall and Basinghall-avenue (site C in Redevelopment Unit, Number 4) is to be granted to Wates, Ltd., for the erection of a building for use as offices, shops and licensed premises. Under the terms of the lease the Corporation reserve the right to construct a high level public walkway, connecting bridge or bridges and additional access, staircases and pedestrian ramps, adjacent to the site boundaries. The provision and maintenance of public pedestrian walkways, ramps and staircases will be the responsibility of the developer, who will also bear the cost.

The Annual Budget

Presenting the City's 1960-61 'Budget,' MR. L. B. PRINCE, chairman of the Rates Finance Committee, sounded a note of warning on future development. He said that if undue weight was given to amenities, open spaces and the reduction in the height of commercial buildings, thus affording less available letting space, an increase in the rate poundage would result.

The City's total rateable value, now £13½m., had increased by over £2m. in three years. This had the effect of increasing the product of the 1d. rate from £46,800 to £56,800. Unless the rateable value continued to rise in step with increased expenditure the rate must rise. So far this balance had been achieved.

The further areas to be developed would assist the increase in rateable value, but it would all depend on the future use of the land to be developed.

Mr. Prince said that in the near future it would be necessary to raise further money to defray capital expenditure for town planning and housing and for the re-development of the Barbican area. 'As the Barbican scheme matures large sums will have to be borrowed to meet expenditure. Today, some £3m. has already been spent under the Town Planning Acts on the acquisition of land and buildings within the area.'

Acquisitions continued and the 1960-61 estimates provided for loan charges on £300 000 for the first development expenditure of a capital nature.

While it was expected that on completion of the Barbican scheme the annual cost to the ratepayer would be almost balanced by receipt of rents and other income, nevertheless it would be a number of years before income was obtained and during that interval there would be a further charge to ratepayers in respect of loan charges.

A further £1½m. was needed for housing, and the estimates provided for reconstruction work on some of the older estates in accordance with the modernisation policy.

Domestic Electrical Installation

The Need for More Socket Outlets

THE FREEDOM of planning which electric floor warming gives was one of the points emphasised by the Electrical Development Association in its evidence to the Sub-Committee on Housing Standards of the Central Housing Advisory Committee of the Ministry of Housing and Local Government. The Association also called attention to the meagre electrical facilities provided in flats and small houses and suggested that 26 power points (socket outlets) were required for a five-roomed house.

Dealing with the Sub-Committee's question, 'How far do you consider that heating in the low-cost dwelling can be improved,' the Association replied that there was much misconception regarding both capital and running costs of improved heating installations. Successful results had been obtained in heating a considerable number of blocks of flats by means of electric floor warming, the system being designed to give 60 degrees in the living room, and 50 to 55 degrees in other rooms. The supplementary heating usually consisted of an inset electric fire in the living room and socket outlets for portable fires in the other rooms.

With electric floor warming, the Association's evidence continued, the absence of flues and of the need to have access to chimneys and outside walls gave great freedom of internal and external planning. The capital cost was considerably lower than that of alternative methods and the running costs were also very moderate.

To the question, 'What is the desirable minimum scale of provision of electrical (lighting and power) points,' the Association replied that complaints came not only from householders and Electricity Boards but also from those who were responsible for the maintenance of property. The lack of an adequate number of socket outlets in the home was also deplored by home safety organisations and fire authorities.

Inadequate electrical installations gave rise to much concern from the safety point of view. Apart from the danger of bad lighting which led to accidents, the lack of sufficient socket outlets also had its dangers. In nearly 60 per cent of dwellings there were no more than 3 socket outlets; tenants would not accept these limitations and by one means or another would endeavour to connect whatever electrical appliances they wished to use, resulting in dangerous overloading.

The Association considered that an adequate domestic electrical installation for a five-roomed house was 26 socket outlets. The distribution of these, they stated, should be 1 in the hall or landing, 6 in the kitchen and utility room (including one in the cooker control unit), 6 in the living room, 5 in a double bedroom, and 3 in a single bedroom. Many of these could be twin sockets if the ring circuit system was employed. It was interesting to note that in the United States the general practice was to allow for about 65 socket outlets in an average six-bedroomed house, and even a mass-produced economy house had 45 socket outlets.

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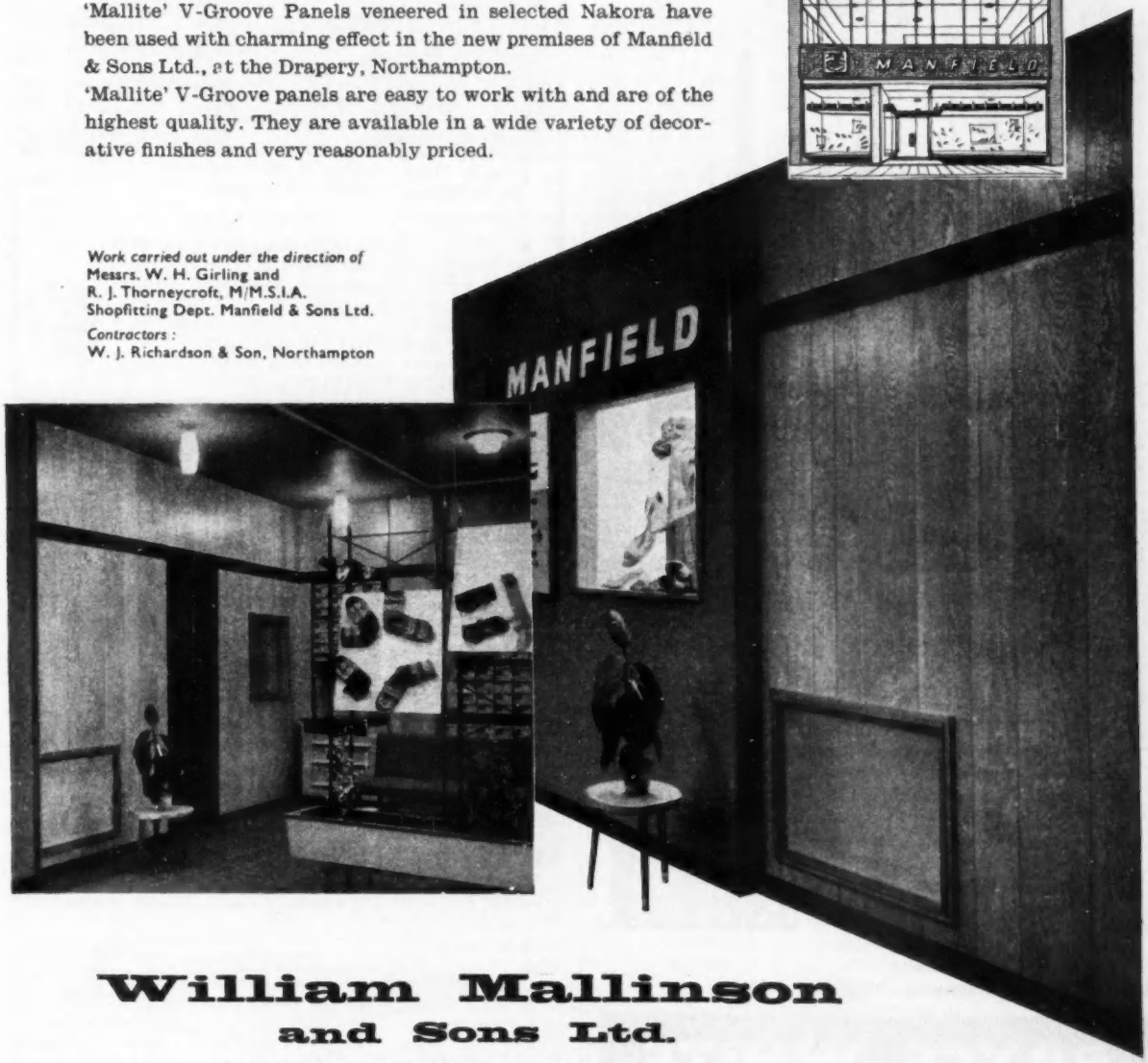

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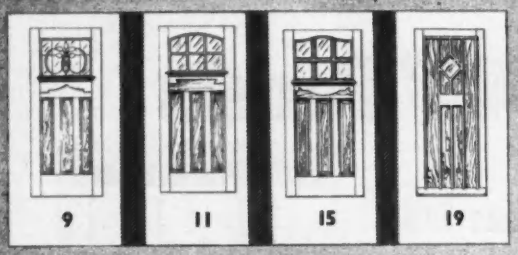

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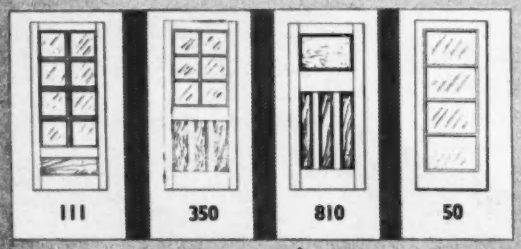

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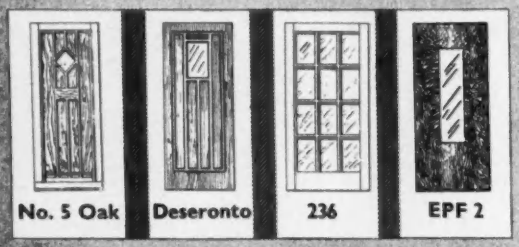

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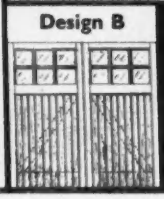

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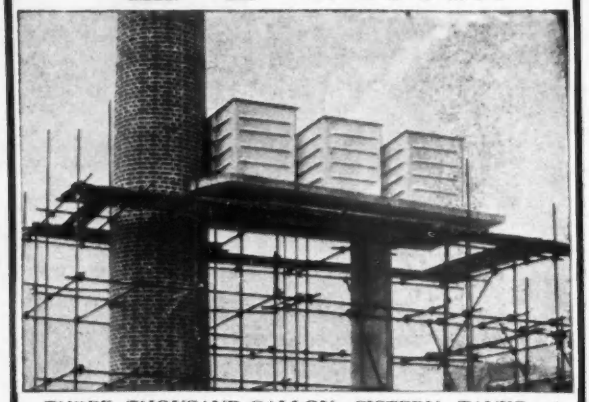

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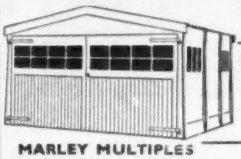

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The Ordnance Survey

Modifications to Standard Series

A REPORT covering the period April 1, 1958, to March 31, 1959, has been drawn up by the Ordnance Survey Department (HMSO, price 6s. 6d.). It shows in general terms the progress made during the year under review and the work carried out by the various branches of the Department as well as the main developments in the methods used. Of special interest is that in addition to the two six-monthly meetings of the Advisory Committee, at which official users have an opportunity to discuss the activities of the Department, three ad hoc meetings were held. These meetings were concerned with the specification of the 1/2500 National Grid series. The first was attended by representatives of most Government Departments that make use of the series, and the second by representatives of the principal interested professional societies and associations. The meetings showed that the new 1/2500 series was a source of some difficulty and inconvenience, particularly to professional users.

After giving careful consideration to the points raised the Department held a further meeting to suggest modifications in the specification of the series which would overcome some of the difficulties. One of the main changes resulting from these meetings is that in future 1/2500 plans will cover 2 km. x 1 km. instead of 1 km. x 1 km., thus reducing the number of parcels broken by the plan edge and halving the number of plans to be printed, stored and handled. A further change is that acreages will be measured to one-hundredth of an acre and not, as in the past, to one-thousandth. A system of numbering parcels broken by the plan edge will be introduced which will give only one number to a broken parcel and avoid the multiplicity of numbers sometimes encountered at the present time.

Changes have also been made in the specifications for the 6-inch and 1/25,000 series so that in future the 1/25,000 will be produced by direct reduction from the 6-inch, thus saving the expense of re-drawing. The present small sheet, which has been criticised, will be dispensed with and a much larger one produced. In the 6-inch plans greater attention will be paid to the showing of rock faces and outcrops. Further progress has been made with the use of hill shading to amplify the contours in the depiction of relief.

The best method of showing on Ordnance Survey maps the rights of way as defined by the National Parks and Access to the Countryside Act of 1949, has been the subject of continued discussion with the Ministry of Housing and Local Government. The definitive surveys of rights of way undertaken by the local authorities are slowly becoming available and it is intended that the results of these surveys will eventually appear on 1/25,000 and one-inch maps.

Building Blocks

President's Concern Over Future

IN HIS REVIEW of 1959 MR. J. C. CHAPMAN, AMICE, President of the Federation of Building Block Manufacturers, expresses concern over the future of clinker blocks. The demand for building blocks, he writes, had been intensified in many areas which, generally speaking, had been met with no great difficulty. But with clinker blocks—still the most widely used of the lightweight aggregate building blocks—the position was different. Most manufacturers had either to curtail or to cease production owing to a shortage of clinker during the summer months. It was most serious in the South where alternative lightweight blocks were upwards of 50 per cent higher in price. The long term supply position of clinker was not very promising as more coal-burning stations were being replaced by or converted into pulverised fuel or oil burning units.

Unnecessary use of Clinker

In recent years, continued Mr. Chapman, an increasing proportion of the available supply was being used as a base material for roads. This seemed a great pity, particularly as in the South cheaper alternative materials were probably available. He did not presume to suggest what materials should be used for a particular type of construction, but he thought that the properties of the material required should be specified rather than the material by name. This would permit contractors to use the cheapest available material with the required characteristics and not oblige them to use clinker, whatever the supply or price position, as was frequently the case at present.

In the elections that followed the President's review, Mr. C. Reeve was elected President for 1960, and Mr. J. H. Moore Vice-President.

The Federation's Annual Luncheon

At the Federation's Annual Luncheon, held at the Piccadilly Hotel on March 8, MR. CHAPMAN said that the prospect of doubling our standard of living was an exciting one. He had heard Sir David Eccles say that much depended on the building industry, that was, on the ability to complete a larger number of buildings with the same labour force. The building block industry, said Mr. Chapman, had more than doubled its activity in the last ten years but in the future he perceived difficulties over raw material supplies.

In reply, the RT. HON. LORD JOHN HOPE, MP, Minister of Works, said that the Government had been worried about the supply of building materials over the past few months. He suggested that the industry might have to accept the switch in national fuel consumption. The move to oil was making clinker scarce, and they would have to look at alternative materials such as fly ash. 'But keep in mind,' he said, 'that builders like low quotations.'

Colonial Building

Grants for Education

GRANTS amounting to £681,291 for colleges, schools and educational facilities were made under the Colonial Development and Welfare Acts during February. Altogether 67 grants—including 19 for research—totalling £1,822,742, were approved during the month for the benefit of Britain's oversea territories.

Education grants included: £193,099 towards building a £214,534 high school in Lautoka, FIJI; £131,400 to cover 90 per cent of the cost of building three Asian secondary schools in KENYA—at Mombasa, Kisumu and in the Central Province; and £151,667 for extensions to the Mary Seacole and Irvine Halls of Residence at the University College of the WEST INDIES. Other major grants included £106,200 towards building the 819-bed Butabika Hospital for Nervous Diseases near Kampala, UGANDA.

Building in Australia

Upward Trend in House Building

THE ESTIMATED number of dwellings completed in Australia during the December quarter of 1959 was 23,199, bringing the total for that year to 86,584. This was the highest number of completions recorded in any one year. Preliminary figures show that buildings commenced in the December quarter reached 21,956 making a total of 85,182 for 1959 compared with 77,758 in 1958. In New South Wales 31,313 new dwellings are estimated to have been completed during the year. Completions in Victoria for 1959 were estimated at 25,692 compared with 24,713 in 1958.

The current high level of activity indicates increased support for housing by the private financial institutions, but further support is obviously necessary if progress is to continue and housing shortages overcome.

TDA Publications

TWO NEW PUBLICATIONS have been issued by the Timber Development Association. Information Bulletin E/1B/5, 'Non-Destructive Testing of Wood by Vibration Methods,' is a review of sonic and ultrasonic testing by I. D. G. Lee, BSc, in which he discusses the advantages of non-destructive test methods as distinct from mechanical loading techniques. Research Report E/RR/3, 'The Effective Width of Plywood Flanges in Stressed Skin Construction' by H. Tottenham, MA, deals with the subject as a problem of plane stress. Both publications may be obtained from the Association at 21 College Hill, London, EC4, price 3s. 6d. each.

THE BUILDER CURRENT PRICES

THE information given on these pages has been specially compiled for *The Builder* and is copyright. It is the intention that the details given should indicate fair average prices of materials, not necessarily the highest or the lowest. The prices apply to large quantities of materials loaded at works, delivered at London Stations or at site in London Area as stated. Prices for smaller quantities ex merchant's warehouse will necessarily be higher so as to include the stocking and handling costs involved. It is recommended that the prices of materials should be confirmed by inquiry from suppliers and merchants.

AGGREGATES AND SAND

Delivered site in full lorry loads. Average of prices for Boroughs of Westminster, Paddington, Holborn and St. Pancras.

		£	s.	d.
Pit Ballast	per yd.	1	5	5
Pit Sand	,,	1	3	8
Washed Sand	,,	1	6	9
⅜ in. Shingle	,,	1	4	3
½ in. Broken Brick	,,	1	0	9
Pan Breeze	,,	1	0	6
Fine or Coarse Foamed Slag Aggregate ... 2 yds. of fine and 2.6 yds. of coarse per ton.	per ton	3	8	0

CEMENT, etc.

Including non-returnable jute sacks or paper bags.

		£	s.	d.
Best British Portland Cement. Standard Specification delivered Charing Cross area.				
6-ton loads and upwards, site	per ton	5	10	0
1 to 6 tons, site	,,	6	2	0
Rapid-Hardening Cement in 6-ton loads and upwards to site	,,	6	0	6
1 to 6 tons do. site	,,	6	12	6
Aquacrete Water Repellent Cement. 32s. 6d. per ton on ordinary cement prices.				
Sulphate Resisting Cement. 32s. 6d. per ton on ordinary cement prices.				
Red, Buff or Khaki Colorcrete in 6-ton lots	,,	8	10	0
Other colours according to colour. In 4-ton lots from 308s. 0d. to 778s. 0d. per ton.				
White Portland Cement	,,	13	15	6
Under 1 ton	per cwt.		16	9
417 Cement (Ultra Rapid Hardening) in 6-ton lots and upwards	per ton	7	2	6
Super Cement (Waterproof), 32s. 6d. per ton above Portland Cement.				
Cullamix Tyrolean Finish, £11 8s. 0d. to £14 3s. 0d. (1-ton loads and upwards.)				
Lightning and Ciment Fondu Brands High Aluminous cement, 6-ton lots and up	,,	15	14	6
Stourbridge Fireclay, 6-ton loads at Railway Depot, London	,,	6	19	0
Stourbridge Fireclay, 6-ton loads (London sites)	,,	7	7	0
Moler Mortar Powder for Flue Bricks (London sites)	per cwt.	1	10	0

BRICKS

		£	s.	d.
Full Loads.				
First Hard Stocks	per 1,000	15	19	6
Second Hard Stocks	,,	14	3	6
Mild Stocks (Kiln Burnt)	,,	10	5	0
Mild Stocks	,,	10	0	0
All loaded free into lorry at the works. The question of haulage is still very difficult and prices must be obtained from job to job.				
2½ in. Nominal Fletton Bricks to sites in W.C. district:				
Commons	,,	5	18	0
Cellular Commons	,,	5	18	0
Keyed do.	,,	6	0	0
Rustics	,,	7	10	0
Cellular Rustics	,,	7	10	0
Single Bullnose Commons	,,	7	12	6
Sandfaced	,,	8	10	0
Tuscans	,,	9	5	0
Saxons	,,	9	13	0
Golden Buffs	,,	10	0	0
Dapple Light Facings	,,	10	7	6
Heather Facings	,,	10	3	0
Best Blue Pressed Staffs (London stations)	,,	30	12	6
do. do. (London sites)	,,	30	14	0
do. Bullnose (London stations)	,,	31	11	6
do. do. (London sites)	,,	31	13	0
Blue Wire Cuts (London stations)	,,	27	5	0
do. do. (London sites)	,,	27	6	6
Midhurst Lime Bricks (London sites)	,,	11	0	6
Uxbridge Whites (London sites)	,,	10	19	0
Special Purpose Sandlime Bricks (London sites)	,,	8	12	0
Best Stourbridge Fire Bricks:				
2½ in. (London stations)	,,	30	12	3
2½ in. (London sites)	,,	31	1	0
3 in. (London stations)	per 1,000	36	14	9
3 in. (London sites)	,,	37	5	3
2⅞ in. Moler Flue Bricks (London sites)	,,	31	10	0
2½ in. Machine-made Sandfaced Red Facings (London sites)	,,	17	7	6
2½ in. Machine-made Multi Red Facings (London sites)	,,	17	12	6
2½ in. Hand-made Sandfaced Red Facings (London sites)	,,	18	17	6
2½ in. Hand-made Sandfaced Multi-Colour Facings (London sites)	,,	18	17	6
Hand-made Sandfaced Cherry Red Facings, Berkshire district (London sites)	,,	19	13	0
Hand-made Sandfaced Multi-Colour Facings, Berkshire district (London sites)	,,	19	13	0
Rubber Bricks for gauged arches (London sites)	,,	49	1	3
2½ in. Surrey Clamp Burnt Multi Stock Facings (London sites)	,,	15	6	6
2½ in. Surrey Kiln Burnt Multi Stock Facings (London sites)	,,	16	7	0
Glazed Bricks (London sites), White, Ivory, Brown:				
Stretchers	,,	64	0	0
Headers	,,	63	0	0
Quoins, Bullnose and 4½ in. Flats	,,	80	0	0
Double Stretchers	,,	85	0	0
Double Headers	,,	77	10	0
One side and two ends	,,	87	0	0
Two sides and one end	,,	89	10	0
Splays and Squints	,,	83	0	0
Cream and Buff, £3 extra over White. Other colours, hard glaze, £8 10s. 0d extra over White. All above prices plus 32½% for Best quality and plus 32½% less 10% for Second quality.				

PARTITION SLABS, etc.

Delivered Central London Area. (W.C. District.)

		£	s.	d.
HOLLOW CLAY PARTITION BLOCKS (Keyed)				
Minimum lorry loads				
*2½ in. 140 yds.	per yd. sup.		4	5
BUILDING BLOCKS (Keyed)				
*3 in. (6 cavity) 110 yds.	,,		5	5
*4 in. (6 cavity) 90 yds.	,,		6	10
6 in. (8½ in. × 5½ in.) 1,250 blocks	per 1,000	26	18	0
* Half blocks at no extra charge.				
CLINKER CONCRETE				
2 in. 100 yds.	per yd. sup.		3	9
2½ in. 85 yds.	,,		4	4
3 in. 75 yds.	,,		5	3
4 in. 55 yds.	,,		6	5
CRANHAM TERRA COTTA				
2 in.	,,		6	9
2½ in.	,,		7	9
3 in. Load bearing quality	,,		8	9
4 in. do. do.	,,		10	9
MOLER PARTITION BLOCKS				
2 in. 150 yds.	,,		11	3
2½ in. 120 yds.	,,		14	0
3 in. 100 yds.	,,		15	0
4 in. 90 yds.	,,		17	0
LIGHTWEIGHT CONCRETE BUILDING AND PARTITION BLOCKS OF VARIOUS SOURCES OF MANUFACTURE				
2 in. 100 yds.	per yd. sup.		5	4
2½ in. 80 yds.	,,		6	5
3 in. 65 yds.	,,		7	5
4 in. 50 yds.	,,		9	4
4½ in. 44 yds.	,,		10	2
6 in. 33 yds.	,,		13	5
THERMALITE-YTONG PARTITION BLOCKS				
2½ in. 144 yds.	,,		7	0
THERMALITE-YTONG LOAD-BEARING INSULATING BLOCKS				
3 in. 120 yds.	per yd. sup.		8	5
4 in. 90 yds.	,,		11	0
5 in. 72 yds.	,,		13	9
6 in. 60 yds.	,,		16	6
8½ in. 42 yds.	,,	1	3	8
FLOOR BLOCKS AND FILLER TILES				
Floor Blocks 12 in. × 12 in. delivered in full lorry-loads:				
3 in.	per 1,000	34	1	0
4 in.	,,	36	10	0
5 in.	,,	43	15	0
6 in.	,,	49	19	0
7 in.	,,	61	8	0
8 in.	,,	71	19	0
9 in.	,,	79	3	0
10 in.	,,	87	15	0
Filler Tiles in multiples of 10 tiles per 1,000 multiples:				
12 in. × 3 in. × ⅝ in.	,,	42	15	0
12 in. × 4 in. × ⅝ in.	,,	73	15	0
10 in. × 5 in. × ⅝ in.	,,	73	15	0

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- Cool in summer
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- Anti-condensation
- Absorbs sound

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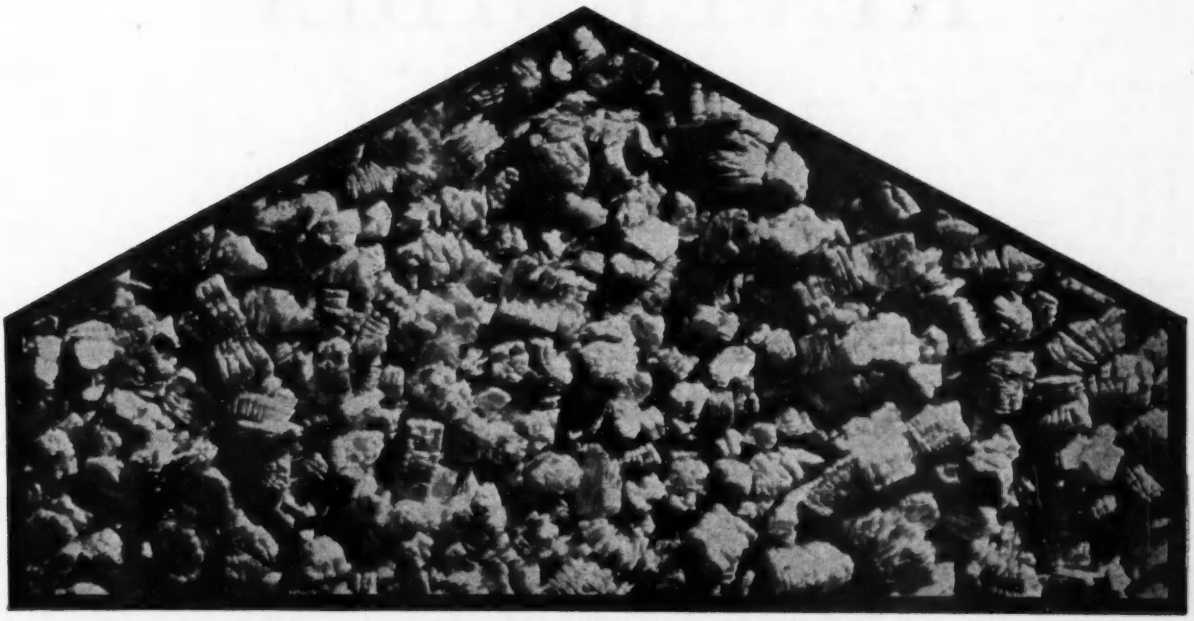

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in Standard Sizes

Send for List 284a

HENRY HOPE & SONS LTD.

Smethwick, Birmingham & 17 Berners St., London, W.1

STONEWARE DRAIN PIPES, etc.

The following are the percentages to be added to the Revised Standard List (Nov., 1956) prices delivered London Area.
Delivered ex Merchants Wharf or Depot.

	Over 2 tons	Over 100 pieces Under 2 tons	Under 100 pieces Under 2 tons
Best Quality ...	−10%	+5%	+12½%
BSS Best Quality...	+10% −10%	+10% +5%	+10% +12½%
Tested Quality ...	+37½% −10%	+37½% +5%	+37½% +12½%
BSS Tested Quality	+47½% −10%	+47½% +5%	+47½% +12½%

		£	s.	d.
3 in. Land Drain Pipes (in 12 in. lengths)	per 1,000	11	18	6
4 in. do. do.	,,	15	19	6
6 in. do. do.	,,	32	19	0
9 in. do. do.	,,	62	9	0

DAMP COURSE

		£	s.	d.
Hessian base bitumen 7 lb. per yd. sup. in 24 ft. rolls cut to wall widths in lots of £6 value and over delivered London area	per yd. sup.		3	2
Asbestos base do. 7 lb. per yd. sup. do. do.	,,		5	2
Lead lined bitumen do. 9½ lb. per yd. sup. do. do.	,,		12	2
18 in. × 9 in. British damp course slates	per 1,000	43	8	11
14 in. × 9 in. do. do.	,,	32	8	2
9 in. × 9 in. do. do.	,,	18	18	9
18 in. × 4½ in. do. do.	,,	19	19	9
14 in. × 4½ in. do. do.	,,	15	18	3
9 in. × 4½ in. do. do.	,,	10	14	3

STONE

		£	s.	d.
Bath Stone				
Monks Park	per ft. cube		9	9
St. Aldhelm Box Ground	,,		11	0
Delivered in railway trucks at South Lambeth B.R. Western Region.				
Doulting Stone Random Blocks. Delivered London area	,,		10	4
Beer Stone. Delivered London area	,,		10	0
Portland Stone—				
Brown Whitbed in random blocks, 25 ft. average delivered in railway trucks at Nine Elms, B.R. Southern Region	,,		9	4
Yorkshire Stone—Blue Robin Hood Quality. Delivered to site London in 6-ton lots.				
9 in. × 3 in. Rubbed, weathered, throated and stolled cills	per ft. cube	4	5	10
12 in. × 6 in. do. do. do.	,,	3	1	2
12 in. × 3 in. Plain coping, twice throated	,,	2	7	6
12 in. × 3 in. Weathered and twice throated coping	,,	3	3	3
14 in. × 6 in. do. do. do.	,,	2	17	0
4½ in. × 9 in. Plinth rubbed on top and face ...	,,	2	11	0
3 in. sawn two sides Slabs, random sizes ...	per ft. sup.		9	1
Templates and Cover Stones, 3 in., 4 in. and 6 in. thick, edges coped for rendered brickwork ...	per ft. cube	1	11	3
do. do. fair one edge for fair faced brickwork	,,	1	17	0
Hard York—				
12 in. × 2 in. Square Steps, rubbed on top and edge	per ft. run		11	0
14 in. × 3 in. Round-nosed Steps, rubbed on top and front	per ft. cube	2	18	3
12 in. × 6 in. Plain Steps, rubbed top and front	,,	2	11	0
2 in. Rubbed and Jointed Paving, given sizes ...	per ft. sup.		10	3
2 in. Sawn Paving, edges squared, in random sizes	per yd. sup.	3	12	0

TILES AND PANTILES

Delivered London area by road in 6 tons or over per 1,000.

	£	s.	d.
Machine-made Pantiles and French pattern Tiles from Lincolnshire district	29	19	0
Hand-made Pantiles Berkshire district	55	18	0
Hand-made Double Roman Bridgwater district ...	64	4	1
Hand-made 10½ × 6½ tiles Berkshire district	15	18	3
Machine-made 10½ × 6½ Staffordshire district	15	2	6
Hand-made Hip and Valley tiles per doz.	1	11	10
Machine-made Hip and Valley tiles do.	1	10	1
Concrete tiles 10½ × 6½	8	10	0
do. Interlocking (49S)	19	16	6

NOTE.—Breakage in transit, purchasers' responsibility.

SLATES

First-quality Slates from Penrhyn or Portmadoc, carriage paid in full truck loads to London Rate station. Per 1,000 actual.

	£	s.	d.
24 × 12	150	19	7
22 × 12	122	14	2
22 × 11	110	16	4
20 × 12	103	19	1
20 × 10	99	11	6
18 × 10	69	2	6
18 × 9	60	11	9
16 × 10	54	8	10
16 × 8	42	12	4

NOTE.—Breakage in transit, purchasers' responsibility.

TIMBER

				£	s.	d.
Softwood						
Joinery quality		Ex Wharf	per standard	£115 to £140		
Carcassing quality		do.	,,	£94 — £98		
1 in. Tongued and Grooved Flooring		do.	,,	£110	0	0
Hardwood				£	s.	d.
Mahogany—	African S.E.	do.	per ft. cube	1	10	0
do.	Honduras S.E.	do.	,,	3	5	0
Oak	European S.E.	do.	,,	2	10	0
do.	Japanese S.E.	do.	,,	3	0	0
do.	English Logs sawn ...	do.	,,	2	0	0
Teak	8 in. average S.E. ...	do.	,,	3	17	6
Walnut	African Logs sawn ...	do.	,,	1	2	6

DOORS (in Lots 1–11)

Delivered London area.

		£	s.	d.
1½ in. 4 Horizontal Panel. Pattern 4 in. deal				
2 ft. 0 in. × 6 ft. 6 in.	each	1	16	0
2 ft. 3 in. × 6 ft. 6 in.	,,	1	17	6
2 ft. 6 in. × 6 ft. 6 in.	,,	1	18	6
2 ft. 9 in. × 6 ft. 6 in.	,,	2	0	6
2 in. do. but top panel open. Pattern 4 × G in deal				
2 ft. 6 in. × 6 ft. 6 in.	,,	2	9	0
2 ft. 9 in. × 6 ft. 6 in.	,,	2	11	6
2 in. 2 Panel top panel open. Pattern 2 × G in deal				
2 ft. 6 in. × 6 ft. 6 in.	,,	2	3	0
2 ft. 9 in. × 6 ft. 6 in.	,,	2	5	0

SUNDRIES

Delivered London area.

		£	s.	d.
1 in. Wood Wool Slabs 6 ft. 0 in. × 2 ft. 0 in. in quantities of 1 ton (89 yds. to 1 ton)	per yd.		6	2
1½ in. do. (67 yds. to 1 ton)	,,		8	0
2 in. do. (52 yds. to 1 ton)	,,		9	9½
2½ in. do. (45 yds. to 1 ton)	,,		11	3
3 in. do. (39 yds. to 1 ton)	,,		12	7½
Quantities under 1 ton add 1d. per ½ in. of thickness.				
½ in. imported insulation Board, quantities over 5,000 sq. ft.	per 100 sq. ft.	2	2	6
⅛ in. Hardboard do.	,,	1	17	6
5/16 in. do. do.	,,	2	4	6
3/16 in. Asbestos Flat Building Sheets	per yd. sup.		4	3½
¼ in. do. do. do.	,,		6	0
Roofing Felt 1-ply	,,		1	9
do. 2-ply	,,		2	2½
Best Scotch Glue in slabs	per ½ cwt.	5	8	0
do. pearl	,,	5	8	0
Croid Glue	28 lb.	2	6	0
Cut Nails 3 in. (1-ton lots)	per ton	78	10	0
do. 4 in. and up (1-ton lots)	,,	75	0	0
Wire Nails 3 in. (4-cwt. lots)	per cwt.	3	13	5
do. 4 in. and up (4-cwt. lots)	,,	3	12	10

METALS

STEEL JOIST, ETC.

			£	s.	d.
Basis Joists— 6 in. × 5 in., 8 in. × 5 in., 8 in. × 6 in., 10 in. × 6 in., 12 in. × 6 in., plain cut to lengths delivered London area		per ton	47	15	0
Extra for sizes					
3 in. × 1½ in.	4 in. × 1¾ in.	,,	3	10	0
3 in. × 3 in.	... ...	,,	2	10	0
4 in. × 3 in.	... ...	,,	2	5	0
10 in. × 4½ in.	... ...	,,	1	10	0
5 in. × 2½ in.	5 in. × 3 in.	,,	1	15	0
4¾ in. × 1¾ in.	... ...	,,	3	5	0
5 in. × 4½ in.	7 in. × 3½ in. 13 in. × 5 in. ...	,,		15	0
6 in. × 3 in.	24 in. × 7½ in.	,,	2	0	0
6 in. × 4½ in.	7 in. × 4 in. 8 in. × 4 in.	,,	1	5	0
9 in. × 4 in.	10 in. × 5 in.				
12 in. × 5 in.	22 in. × 7 in.	,,	1	0	0
9 in. × 7 in.	10 in. × 8 in. 12 in. × 8 in.				
14 in. × 5½ in.	14 in. × 6 in. 14 in. × 8 in.				
15 in. × 5 in.	15 in. × 6 in. 16 in. × 6 in.	,,		10	0
16 in. × 8 in.	18 in. × 6 in. 18 in. × 7 in.				
18 in. × 8 in.	20 in. × 6½ in. 20 in. × 7½ in.				
Steel angles average price		,,	48	15	0
Steel tees average price		,,	49	15	0
Fabricated work delivered London— R.S. Joists cut and fitted		,,	64	15	0
Compound girders		,,	69	5	0
Stanchions		,,	74	15	0
Compound stanchions		,,	79	5	0
In Roof Work—Trusses and Purlins		,,	89	0	0
Average prices not for awkward work.					
Angle cleats and ⅝ in., ¾ in. and ⅞ in. bolts average price London area		per cwt.	5	10	0

FERRO-CONCRETE BARS

		£	s.	d.
Mild Steel Ferro-Concrete bars British manufacture to BSS785 ex London Stock 1 in. diam., and upwards	per ton	49	10	0
¼ in. diam.	per ton extra	8	12	6
5/16 in. do.	,,	6	12	6
⅜ in. do.	,,	4	12	6
½ in. do.	,,	3	2	6
⅝ in. do.	,,	1	10	0
⅞ in. and ¾ in. diam.	,,		15	0

MILD STEEL TUBE

Tubes to BSS 1387—1957 and Fittings. *Revised* list prices and following discounts :

Galvanised Tube—	Under 1 ton	Over 1 ton	W.I. Fittings	Malleable Fittings
Light	−39½%	−41%	Light −26½%	Malleable List
Medium	−35½%	−37%	Heavy −22½%	−23%+40%
Heavy	−27½%	−29½%		
Black—				
Light	−50%	−51½%	Light −32½%	Malleable List
Medium	−46%	−47½%	Heavy −28½%	−23%
Heavy	−38½%	−40%		

C.I. HALF-ROUND GUTTER

Delivered London per yd. in 6 ft. lengths.

	Gutters	Nozzles	Stop Ends
3 in.	4/0½	3/7	1/-
3½ in.	4/4½	3/1	1/-
4 in.	5/8	4/5	1/7
4½ in.	6/3	4/11	1/1
5 in.	6/11½	5/4	2/2

METALS—*continued*

C.I.O.G. Gutters

Per yd. in 6-ft. lengths	Gutters	Nozzle	Stop Ends
3 in.	5/2½	4/8	1/3
3½ in.	5/10	4/8	1/7
4 in.	6/5	4/11	1/10
4½ in.	6/11½	5/8	2/2
5 in.	7/7½	6/5	2/6

C.I. Rain-Water Pipes

	Pipe	Bends	Branches
2 in.	8/7½	4/5	6/4
2½ in.	8/7½	4/11	8/6
3 in.	9/8½	6/2	9/2
3½ in.	11/0½	7/3	11/–
4 in.	12/9	8/9	13/1

L.C.C. Coated Soil Pipe

2 in.	9/8½	7/7	9/2
2½ in.	10/4	8/5	11/5
3 in.	11/7	9/2	13/7
3½ in.	12/11½	11/5	15/10
4 in.	14/9	12/9	18/8

Above prices for gutters, rain-water and soil pipes for under 5-cwt. lots. only. Lots over 5 cwt. see List No. 3300, dated February 1, 1955, plus 25% and tonnage allowance. 4-ton lots 5%, 2-ton lots 2½%.

L.C.C. Coated Drain Pipes

In 9-fts.:	cwt.	qt.	lb.	Per yd.	Bends	Branches
4 in.	1	1	17	35/3	23/9	42/–
6 in.	2	0	1	51/7	63/9	101/–

Asbestos Rain-Water Pipes and Fittings

All less 17½% discount.		2 in.	2½ in.	3 in.	4 in.
Pipes, 6-ft. lengths ...	per yd.	4/7	4/10½	5/11	7/10
Shoes ...	each	3/–	3/3	3/10	5/2
Single Branches ...	,,	4/8	5/6	6/7	9/2
Bends, square or obtuse ...	,,	3/3	3/7	4/8	6/7
Swan Necks, 4½ in. proj....	,,	3/7	4/8	5/2	7/3
do. 6 in do....	,,	3/10	5/2	5/10	7/10

Asbestos O.G. Gutters and Fittings

		4 in.	4½ in.	5 in.	6 in.
Gutters, 6-ft. lengths	per yd.	4/4	4/9½	5/9	6/10½
Drop ends	each	3/6	4/–	4/9	5/5
Stop ends	,,	1/1	1/2	1·/3	1/5
Angles ...	,,	3/7	4/1	5/–	5/10
Nozzles	,,	3/6	4/–	4/9	5/–
Union Clips	,,	1/9	2/1	2/6	2/11

Asbestos Half-Round Gutters and Fittings

	per	3 in.	4 in.	4½ in.	5 in.	6 in.
Gutters, 6-ft. lengths	yd.	3/0½	3/7½	3/8½	4/4½	6/1
Drop ends	each	2/6	3/–	3/3	3/7	5/2
Stop ends	,,	1/–	1/1	1/2	1/3	1/5
Angles ...	,,	2/10	3/3	3/7	3/10	5/2
Nozzles	,,	2/6	3/–	3/3	3/7	5/2
Union Clips	,,	1/3	1/4	1/5	1/7	2/5

	Per ton basis in London £ s. d.
Iron—Staffordshire Crown Merchant Quality ...	52 17 6
Mild Steel Bars ...	47 8 6
Mild Steel Hoops ...	49 0 0

	Ex Merchant's Stock per ton Two-ton lots £ s. d.
Soft Sheets C.R. and C.A.—	
20 gauge ...	62 7 6
24 gauge ...	64 17 6
26 gauge ...	67 17 6
Galvanised Corrguated Sheets, 6-ft. to 9-ft. —	
20 gauge ...	70 18 0
24 gauge ...	74 8 0
26 gauge ...	79 13 0
Galvanised Flat Sheets C.R. and C.A. :	
20 gauge ...	72 8 0
24 gauge ...	75 18 0
26 gauge ...	81 3 0

ALUMINIUM AND ALUMINIUM ALLOYS

(Base Prices)		£ s. d.
Sheet BS 1740 S1C 18 SWG (36 in. wide)...	per lb.	2 11½
Sheet BS 1470 NS3 Utility 18 SWG (36 in. wide)	,,	2 10½
Coiled strip BS 1470 S1C 18 SWG (24 in. wide)	,,	2 10½
Coiled strip BS 1470 NS3 Utility 18 SWG (24 in. wide) ...	,,	2 10
Coiled strip for flashing, high purity, 22 SWG (12 in wide) ...	,,	3 1
Corrugated sheet BS 1470 NS3 Circular Profile 8 ft. × 32 in. × 20 SWG ...	per sheet	1 13 0
Corrugated sheet BS 1470 NS3 Industrial Profile 8 ft. × 31⅜ in. × 20 SWG ...	,,	1 18 8
Corrugated sheet BS 1470 NS3 Mansard Profile 8 ft. × 31⅜ in. × 20 SWG ...	,,	1 12 1
Extruded section BS 1476 E1C simple moulding	per lb.	2 9½
Extruded section BS 1476 E1C 1 in. diam. round	,,	2 7
Extruded section BS 1476 HE10WP simple angle	,,	3 0½
Extruded section BS 1476 HE10WP 1 in. diam. round ...	,,	2 11½
Tubing BS 1471 T1C 1½ in. O/D × 20 SWG ...	,,	4 5½
Tubing BS 1471 HT10WP 1½ in. O/D × 20 SWG	,,	5 10

PLUMBERS' BRASS WORK, etc.

Delivered in London area.

All per dozen	M.O.H. ½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
Screwdown bib cocks Crutch head for iron ...	87/–	128/–	—	—	—	—
Toilet bib cocks for iron ...	109/–	158/5	—	—	—	—
Screwdown stop cocks for iron	66/–	95/9	188/–	363/–	522/6	917/6
do. with two unions for lead	89/–	132/–	234/4	472/–	623/6	1,389/6
Double nut boiler screws ...	18/8	26/5	47/6	48/6	67/–	93/6
Heavy Croydon ball valves...	77/–	193/6	312/5	568/8	734/10	—
Plumbers' union brass lead to iron ...	19/6	23/6	38/6	52/10	70/6	165/–
	1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4in.
Caps and Screws ...	33/–	40/8	59/6	92/5	118/10	155/3
Brass Sleeves ...	—	31/11	31/11	56/2	74/10	91/5
	1½ × 6 lb.		1½ × 6 lb.	2 × 7 lb.	3 × 7 lb.	
Lead P. trap with brass cleaning screws ...	68/6		85/6	137/–	233/9	
Lead S. trap do. do.	82/9		102/9	168/3	302/3	

Solder :			s.	d.
Plumbers' ...	1 cwt. lots	320/–	14 lb. lots per lb.	3 7
Tinmen's ...	,, ,,	404/–	,, ,, ,,	4 5
Blow pipe ...	,, ,,	407/–	,, ,, ,,	4 6

Copper Tubes and Sheets

Copper tubes BSS 659/1944 on the basic price of 29⅝d. per lb. plus gauge and manufacturing extras as follows. Minimum quantities, 10 cwt.

	Extra d.		d.		d.
⅛ in. × 19 gauge	15½	Total per lb.	45⅛	Approx. per ft.	12¼
¼ in. × 19 ,,	13⅜	,, ,,	43⅜	,, ,,	17
1 in. × 18 ,,	12½	,, ,,	41½	,, ,,	26
1¼ in. × 18 ,,	11⅝	,, ,,	41⅛	,, ,,	31¼
1½ in. × 18 ,,	11⅝	,, ,,	41⅛	,, ,,	37½
2 in. × 17 ,,	13¼	,, ,,	42⅞	,, ,,	60

Small Quantity extras :—

10 cwts. to 5 cwts. ...	plus ½d. per lb.
5 cwts. to 2 cwts. ...	,, 1d. ,,
2 cwts. to 1 cwt. ...	,, 2d. ,,

	£ s. d.
Rolled Copper sheets up to 48 in. wide, basic price plus gauge and manufacturing extras ...	290 5 0

Zinc

		£ s. d.
Sheet Zinc, 10 gauge (25 SWG), 5 cwt. lots upwards	per cwt.	7 15 3
,, ,, 12 gauge (23 SWG), ,, ,, ,,	,,	7 14 9
,, ,, 14 gauge (21 SWG), ,, ,, ,,	,,	7 13 6

Brass Tubes

Brass tubes, basic price, plus gauge and manufacturing extras ...	per lb.	2 0½

LEAD SHEET AND PIPES

Basis selling price to one address in London or Home Counties :

		£ s. d.
Lead Sheet, English, 3½ lb. substance and upwards	per ton	115 15 0
,, Water Pipe, in coils ...	,,	118 0 0
Lead Soil Pipe, 10 ft. or over 2 in. to 4 in. in dia.	,,	119 10 0
,, ,, ,, over 4 in. dia. ...	,,	121 10 0
,, Gas or Untinned Compo pipe...	,,	119 10 0

5 cwt. lots and over less 6d. per cwt. off basic prices.

Extras over Basis for quantities under 5 cwt.:

3 cwt. and under 5 cwt. ...	per cwt.	4 0
1 cwt. do. 3 cwt. ...	,,	6 0

Smaller quantities than 1 cwt. priced specially.

Supplying sheet lead and lead pipe to less than basis weights and cutting to sizes less than basis charged extra according to current trade schedule.

Allowance for Old Lead, collected, £66 0s. 0d. per ton weighed at buyer's works.

PLASTER, etc.

		£ s. d.
Coarse Pink in 1-ton loads and over delivered on site	per ton	8 4 6
do. White do. do. do.	,,	8 14 0
Sirapite Coarse BSS 1191 Class C do.	,,	8 15 9
do. Fine do. do. do.	,,	9 3 3
do. Browning BSS 1191 Class B do.	,,	8 15 9
do. Board Finish do. do.	,,	8 15 9
Blue Lias Lime, in 6-ton loads ...	,,	6 14 6
Hydrated Lime (Grey), in 6-ton loads ...	,,	5 10 0
do. (White) do. ...	,,	6 0 0
Lump Lime (Grey) do. ...	,,	5 7 0
do. (White) do. ...	,,	5 14 6
White Keen's or Parian Cement, in 1-ton loads...	,,	11 19 3
Pink Keen's or Parian Cement, in 1-ton loads ...	,,	11 14 0
Granite Chips, in 6-ton loads ...	,,	2 5 3
Hair ...	per cwt.	4 17 6
Gypsum Plaster Lath or Base Board, ⅜ in. thick, 600 yds. and over in one delivery. Delivered site	per yd.	2 3½
1,200 yds. ...	,,	2 2½
do. Insulating do. ⅜ in. thick, 600 yds. and over in one delivery. Delivered site ...	,,	2 9
1,200 yds. ...	,,	2 9
Gypsum Plaster Wall Boards, 3 and 4 ft. wide 6 to 12 ft., ⅜ in. thick, 600 yds, and over in one delivery. Delivered site ...	,,	2 6½
1,200 yds. ...	,,	2 5½
do. Insulating do. ⅜ in. thick, 600 yds. and over in one delivery. Delivered site ...	,,	3 0
1,200 yds. ...	,,	3 0

The cleanest and most powerful floor sanders

THE **American** SPINNER

7" disc sander

SANDS RIGHT UP TO THE SKIRTING

The fastest cutting sander for wood floors and borders—also suitable for finishing Terrazzo. Motor develops up to 2 h.p. of sustained speed.
Exceptionally powerful suction makes the Spinner the cleanest disc sander to operate.

American SUPER EIGHT

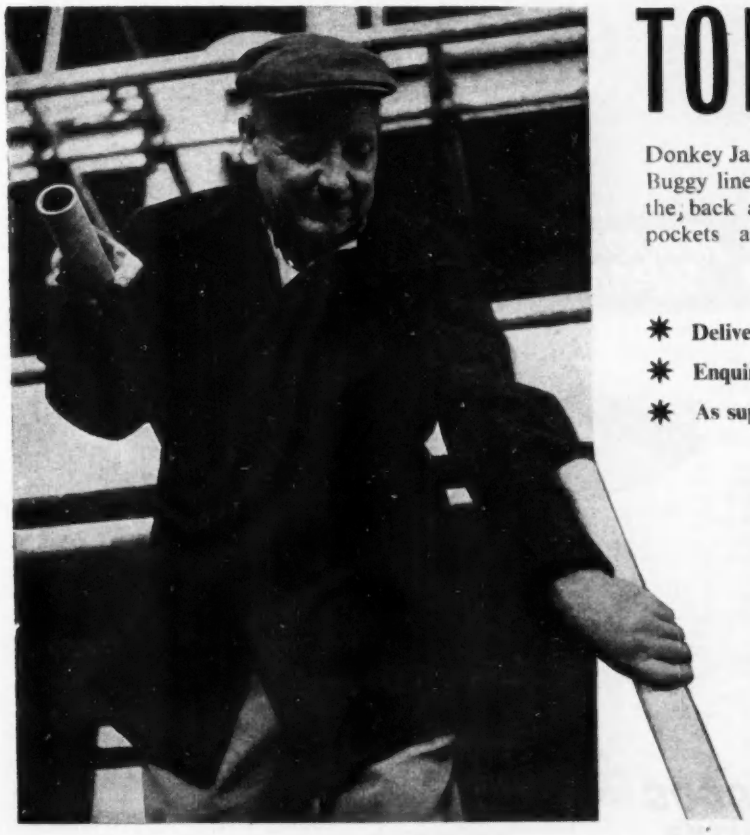
Twice the cutting speed with only half the dust of standard models. Double capacity dust tube and bag.

12 Months Guarantee. Deferred terms available.

Sole British Distributors:—

HORSLEY, SMITH & HEWETSONS

HAYES, Middlesex. Telephone HAYES 2931 MARFLEET, HULL. Telephone 13880



TOP QUALITY

Donkey Jackets tailored from Blue Melton (29/30 ozs.), Buggy lined Tweed with waterproof interlining across the back and shoulders. Two outside stayed patch pockets and available in chest sizes 36" to 46"

Price **26/3** (plus 1/5½d. Purchase Tax)
Orders under 12, carriage and packing extra

- **Delivery is made from stock**
- **Enquiries for special requirements welcomed**
- **As supplied and tested in the Building Industry**

BUY direct from the largest and oldest established manufacturers of Industrial Clothing in the country.
* *Please send trial order or for further particulars.*

By Appointment to
Her Majesty The Queen
Uniform Makers

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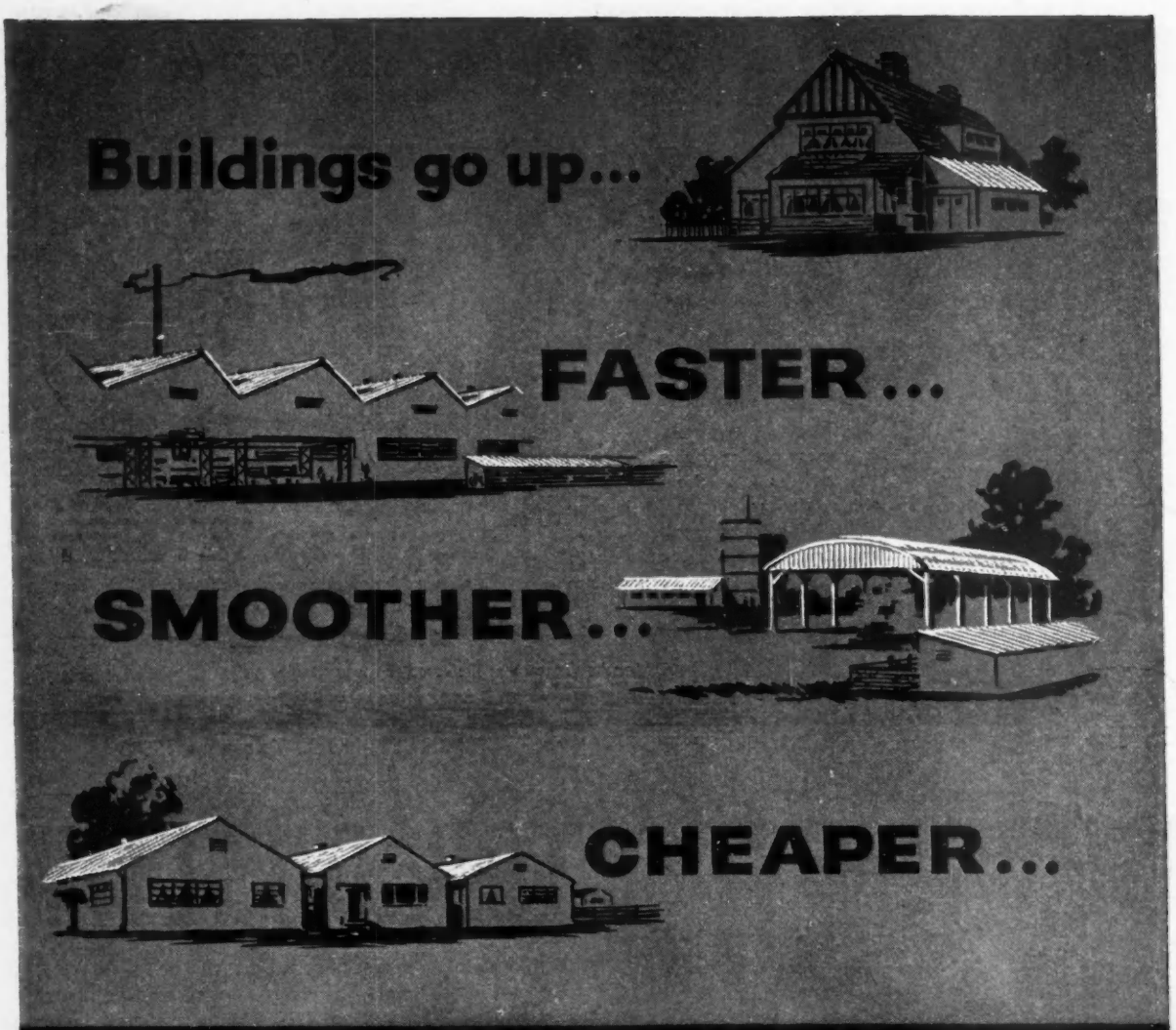
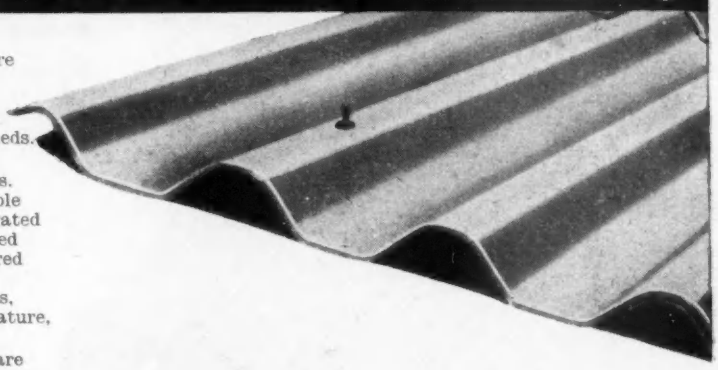


with ATLAS MAJOR SPAN Asbestos Cement Sheeting



Faster...smoother...cheaper. Of course, there are other considerations to successful building; but we claim to offer you the advantages of at least these three essential roofing qualifications. We also claim to be able to apply them to varied needs.

Atlas Roof Sheeting is available in different sizes for use according to pitches of purlin centres. Whereas Major Six Corrugated Sheeting is suitable for 4′ 6″ purlin spacing, Atlas Major Span, Corrugated Asbestos-Cement sheet—as illustrated, is designed to span 6′ 6″ centres. The units are specially tapered to provide a close fitting standard end lap of 6″, for roof pitch of 15° and over, but for lower pitches, the end lap should be extended 12″. Detailed literature, including fixing instructions, is available.

Faster...smoother...cheaper...of course there are other considerations in successful building but these three, when roofing problems arise, at least set the pattern of economical estimating.

THE Atlas Asbestos CEMENT COMPANY LIMITED

ARTILLERY HOUSE · ARTILLERY ROW · LONDON S.W.1
Telephone: ABBEY 3081. *Telegrams:* "ATLASTONCO, SOWEST"
Works at:—MELDRETH, NR. ROYSTON, HERTS.
Also at:—GREENHITHE, STROOD, CAMBRIDGE, SHORNE, RYE *(Sussex)* & GT. YARMOUTH.

PAINTS AND DISTEMPER

Delivered London area.		£	s.	d.
Ceiling Distemper	per cwt.	1	7	6
Washable Distemper	,,	5	15	0
Gloss Paint	per gal.	2	16	0
Super Snowcem cement paint (in 1 cwt. drums)	per cwt.	4	0	0
LEAD PRODUCTS AND OILS				
Ground White Lead, in 1 cwt. kegs	per cwt.	8	7	6
Genuine White Lead Paint, 1-19 gal. lots in 1 gal. tins	per gal.	3	6	6
Genuine Red Lead, Dry, 1 cwt. keg (10 ton lots)	per cwt.	5	12	6
do. do. do. (1 cwt. lots)	,,	6	19	0
Genuine Linseed Oil Putty, 1 cwt. keg	,,	2	12	6
Size XD quality 28 lb.	per tin		9	0
Raw Linseed Oil (5 gal.) drums extra	per gal.		19	2
Boiled Linseed Oil (5 gal.) do.	,,		20	0
SUNDRIES				
Turpentine substitute (5 gal.) drums extra	,,		5	4½
do. do. (40 gal.) do.	,,		4	8½
Solignum, Brown (5 gal. cans) Exterior	,,		8	8
Creosote (40 gal. barrels)	,,		2	3
Paste Powder (1 lb. packets)	per lb.		2	4
White Lining Paper	per piece		1	2

VARNISHES, etc.

Delivered London area.		£	s.	d.
Oak Varnish, Outside or Inside	per gal.	2	0	0
Oal Pale Copal do. do.	,,	2	0	0
Hard Drying Oak for Inside	,,	2	5	0
Crystal Paper Varnish do.	,,	2	8	0
Eggshell Flat Varnish do.	,,	2	2	0
Finest Carriage Varnish	,,	2	7	0
Front Door Varnish	,,	2	4	0
Japan Gold Size	,,	1	12	0
Black Japan	,,	1	16	0
Brunswick Black	,,	1	12	0
Berlin Black	,,	1	10	0
Terebene	,,	1	12	0
Knotting (1 gal. bottles free)	,,	1	15	0
French and Brush Polish (do.)	,,	1	15	0

GLASS

Delivered London area.		s.	d.
18 oz. Sheet Glass Ordinary Glazing Quality— Cut Sizes	per ft. sup.		9½
24 oz. do. do. do. do.	,,		11½
26 oz. do. do. do. do.	,,	1	2¼
32 oz. do. do. do. do.	,,	1	6½
¼ in. Rolled Plate	,,	1	2½
3/16 in. Rolled and Rough Cast	,,	1	5
¼ in. do. do.	,,	1	5¾
¼ in. Figured Rolled and Cathedral, Standard patterns—			
White Group 1	per ft. sup.	1	2½
do. Group 2	,,	1	8½
do. Standard Tints	,,	2	1½
do. Special Tints	,,	7	3
¼ in. Pinstripe, Hammerstripe, Reeded, Reedlyte and Luminating Group 3	,,	1	7½
¼ in. Wired Cast	,,	1	9½
¼ in. Georgian Wired Cast	,,	1	9½
Hollow Glass Blocks—			
P.B.2 Cross reeded 5¾ × 5¾ × 3⅞ in.	each	3	6
P.B.3 Broad reeded 7¾ × 7¾ × 3⅞ in.	,,	5	4
P.B.32 Cross reeded 7¾ × 7¾ × 3⅞ in.	,,	5	4
P.B.4 Prismatic 7¾ × 7¾ × 3⅞ in.	,,	6	0
P.B.5 Flemish 7¾ × 7¾ × 3⅞ in.	,,	5	4
P.B.6 Boomerang 7¾ × 7¾ × 3⅞ in.	,,	6	0
Half Size Blocks—			
P.B.32 Cross reeded 7¾ × 3¾ × 3⅞ in.	,,	4	6
Radiused Corner Blocks to match up with—			
P.B.2 Cross reeded	,,	7	6
P.B.3 Broad reeded	,,	9	0
P.B.32 Cross reeded	,,	9	0
P.B.2, P.B.3, P.B.32 are also supplied in Light Diffusing Blocks at same price.			
¼ in. Polished Plate Glass, G.G. quality—			
In plates not exceeding 2 ft. sup.	per ft. sup.	4	7
,, ,, ,, 5 ft. sup.	,,	5	7
,, ,, ,, 45 ft. sup.	,,	6	9
,, ,, ,, 100 ft. sup.	,,	7	4
¼ in. Polished Plate, extra sizes, *i.e.*, plates exceeding 100 ft. sup. or 160 in. one way or 96 in. both ways. G.G. quality—Not exceeding 135 ft. sup. or 240 in. one way or 130 in. both ways	,,	10	9
Not exceeding 180 ft. sup. or do.	,,	14	3

Plates exceeding 180 ft. sup. prices on application.
Substances other than ¼ in. Polished Plate at Special Prices.
Quantity Tariff—Sheet and Sundry Glass.

The following prices apply to minimum quantities of one size and one pattern delivered by the manufacturer to one site at one time.

Description of Glass	Minimum quantity	per ft. sup. s.	d.
18 oz. sheet O.Q.	3,000		6¾
24 oz. ,, ,,	2,000		8¾
26 oz. ,, ,,	2,000		11
32 oz. ,, ,,	2,000	1	2½
¼ in. Rolled Plate	1,000		10¾
¼ in. Figured Rolled and Cathedral Standard Patterns, White Group 1	1,000		10¾
do. Group 2	1,000	1	2
¼ in. Pinstripe, Hammerstripe, Reeded, Luminating and Spotlyte Group 3	1,000	1	2
3/16 in. Rolled Plate or Rough Cast	2,000	1	1
¼ in. do. do.	2,000	1	1¾
¼ in. Wired Cast, Hexagonal	2,000	1	4¾
¼ in. Georgian Wired Cast	2,000	1	4½

THE BUILDER RATES OF WAGES

AS FROM APRIL 18, 1960. **(Every endeavour is made to ensure accuracy but we cannot be responsible for errors.)**

KEY TO SCHEDULE OF GRADE RATES.

Grade Classification	A	A1
Craftsmen	4/11½	4/11
Labourers	4/4	4/3½

Town	*Grade*
Aberavon	A
Aberdare	A
Abergavenny	A
Abingdon	A1
Accrington	A
Addlestone	A
Afan Valley	A
Aldeburgh	A1
Aldershot District	A1
Alfreton UD	A
Alnwick UD	A
Altrincham	A
Amble	A
Ambleside	A
Amersham	A
Ammanford	A
Andover	A1
Anglesey, Isle of	A
Ardingly	A1
Arundel	A1
Ascot	A1
Ashbourne RD	A1
Ashbourne UD	A1
Ashby-de-la-Zouch UD	A
Ashby Woulds UD	A
Ashford (Kent)	A1
Ashford (Middlesex)	A
Ashington UD	A
Ashtead	A
Ashton-under-Lyne	A
Aspatria and Brayton	A
Atherstone RD	A
Attleborough	A1
Axminster	A1
Aylesbury	A1
Aylsham	A1
Bagshot	A1
Bakewell UD	A1
Banbury	A1
Bangor	A
Barnard Castle UD	A
Barnoldswick UD	A
Barnsley CB	A
Barnstaple	A1
Barrow-in-Furness	A
Barrow-upon-Soar RD (part Thrussington)	A1
Barry	A
Basford RD (ex. Willough-by-on-the-Wolds A1)	A
Basingstoke	A1
Bath	A
Batley MB	A
Baxterley	A1
Beaconsfield District	A
Bearl	A
Beccles	A1
Bedale RD	A
Bedford	A
Bedlington	A
Bedlingtonshire UD	A
Bedwas	A
Beeston & Stapleford UD	A
Belper UD	A
Belton	A
Berkhamsted	A
Berrington	A
Berwick Borough	A
Beverley MB	A
Bewdley MB	A
Bexhill-on-Sea	A1
Bideford	A1
Biggleswade	A1
Billericay	A
Billing	A
Billingham UD	A
Bilsthorpe	A
Bilston MB	A
Birchington	A1
Birkenhead	*
Birmingham CB	†A
Bishop Auckland UD	A
Bishop's Stortford	A
Bishops Castle MB	A1
Bispham	A
Blackburn	A
Blackpool	A
Blackwell RD	A
Blandford	A1
Blaydon UD	A
Blidworth	A
Blyth B.	A
Bodmin	A1
Bognor Regis	A1
Boldon UD	A
Bolsover UD	A
Bolton	A
Boston MB	A
Bourne End	A
Bournemouth District	A
Brackley MB	A1
Bracknell	A1
Bradford CB	A
Bradford-on-Avon	A1
Braintree	A1
Brandon & Byshottles UD	A
Brecon, Borough of	A1
Breconshire, County of	‡A1
Brent Knoll	A1
Brentwood	A
Bridgend	A
Bridlington MB	A
Bridlington RD	A
Bridgnorth MB	A
Bridgnorth RD	A1
Bridgwater	A1
Brierfield	A
Brighouse MB	A
Brighton & Hove	A
Bristol District	A
Broadstairs	A1
Bromsgrove UD	A
Broughton, Flint	A
Bucklastleigh	A1
Buckingham	A1
Buckley	A
Bungay	A1
Burnham-on-Crouch	A1
Burnham-on-Sea	A1
Burnley	A
Burton-on-Trent CB	A
Bury	A
Bury St. Edmunds	A1
Buxton	A
Byfleet	A1
Caernarvon	A
Caernarvonshire, Cnty. of	‡A
Calder Valley	A
Camberley District	A1
Cambridge	A
Cannock UD	A
Canterbury	A1
Cardiff	A
Cardiganshire, Cnty. of	‡A1
Carlisle	A

CURRENT RATES OF WAGES—Continued

Town	Grade
Carlton UD	A
Carmarthen—Borough of	A
Carmarthenshire, Cnty. of	A
Carnforth	A
Castleford UD	A
Caterham	A
Chapel-en-le-Frith	A
Chard	A1
Charmy Down	A
Chatham District	A
Chatteris	A1
Cheadle (Staffs) RD	A
Chelmsford	A
Cheltenham	A
Chepstow	A
Chertsey	A
Chester	A
Chester-le-Street UD	A
Chesterfield MB	A
Chesterfield RD	A
Chichester	A1
Chipping Norton	A1
Chipping Sodbury	A1
Chippenham (inc. Chippenham Within and Hardenhuish)	A1
Chorley	A
Cirencester	A1
Clacton	A1
Clay Cross UD	A
Cleethorpes MB	A
Clevedon	A1
Cleveleys	A
Clitheroe	A
Coalville UD	A
Cobham (Surrey)	A
Colchester	A
Colne	A
Colwyn Bay	A
Congleton	A
Consett UD	A
Conway	A
Corby UD	A
Cornwall, County of	‡A1
Corsham District	A
Coventry CB	A
Cranbrook	A1
Cranleigh	A1
Cranwell Aerodrome Site	A
Crawley	A
Crewe	A
Crewkerne	A1
Cromer	A1
Crook and Willington UD	A
Crowborough	A1
Cuckfield	A1
Cwmbran	A
Dalton-in-Furness	A
Darlington CB	A
Dartmouth	A1
Darwen	A
Daventry MB	A
Deal	A1
Denbigh Town	A
Derby CB	A
Devizes	A1
Devon, County of	‡A1
Dewsbury CB	A
Didcot	A1
Diss	A1
Doncaster CB	A
Dorchester	A1
Dorking	A
Dorset, County of	A1
Dover	A1
Dovercourt	A
Driffield UD	A1
Drigg & Carleton	A
Droitwich MB	A
Dudley CB	A
Dunstable	A
Durham B	A
Eastbourne	A
E. Glam. & Mon. Val.	A
East Grinstead District	A1
East Kesteven RD	A1
East Retford MB	A
Eastwood (Notts) UD	A
Ebbw Vale & District	A
Edenbridge	A1
Ely	A1
Epping	A
Evesham MB	A1
Exeter	A
Exmouth	A1
Fakenham	A1
Falmouth	A1
Fareham	A
Faversham	A1
Felixstowe	A1
Filey UD	A
Fleetwood	A
Flint MB	A
Folkestone	A1
Frinton	A1
Frome	A1
Gainsborough UD	A
Gateshead CB	A
Gillingham (Dorset)	A1
Gillingham (Kent)	A
Glastonbury & Street	A1
Glossop	A
Gloucester	A
Gloucestershire, Cnty. of	‡A1
Godalming	A1
Goole, MB	A
Goole RD	A
Gosport	A
Grantham MB	A
Gravesend	A
Great Yarmouth	A
Grimsby CB	A
Grimsby RD (part)	A1
Guildford District	A1
Halesowen MB	A
Halifax CB	A
Halstead	A1
Haresfield	A1
Harlow	A
Harpenden	A
Harrogate MB	A
Hartlepool B	A
Harwell	A1
Harwich	A
Haslemere	A1
Hastings	A1
Hatfield (Herts)	A
Havant	A
Haywards Heath	A1
Heanor UD	A
Hemel Hempstead	A
Henley-on-Thames	A1
Hereford	A1
Herefordshire, Cnty. of	‡A1
Herne Bay	A1
Hertford	A
Hexham RD	A
Hexham UD	A
Heysham	A
Heywood	A
Higham Ferrers MB	A
High Wycombe	A
Hinckley UD	A
Hitchin	A
Hoddesdon	A
Holywell	A
Horley	A1
Horncastle UD	A1
Horsham	A1
Horwich	A
Huddersfield CB	A
Hull	A
Hunstanton	A1
Huntington (Staffs)	A
Ilfracombe	A1
Ilkeston MB	A
Ilkley UD	A
Ipswich	A
Isle of Sheppey	A1
Isle of Thanet	A1
Isle of Wight	A1
Jarrow B.	A
Keighley MB	A
Kendal	A
Kenilworth UD	A
Kettering MB	A
Keynsham	A
Kidderminster MB	A
Kingskerswell	A1
King's Lynn	A1
Kingsteignton	A1
Kirkham	A
Knaresborough UD	A
Knutsford	A
Lancaster	A
Leamington MB	A
Leatherhead	A
Leeds CB	A
Leek UD	A
Leicester CB	A
Leighton Buzzard	A1
Leiston	A1
Leominster	A1
Letchworth	A
Lewes	A1
Lichfield MB	A
Lincoln CB	A
Liskeard	A1
Littlehampton	A1
Liverpool	*
Llandudno	A
Llanelly (inc. Llanelly RD)	A
Llanfairechan	A
Llangollen	A
London	*
Long Eaton	A
Looe	A1
Loughborough MB	A
Louth MB	A1
Lowestoft	A
Loxton	A1
Ludlow MB	A1
Ludlow RD	A1
Luton	A
Lyme Regis	A1
Lyneham (Devon)	A1
Lytham	A
Macclesfield	A
Maidenhead	A
Maidstone	A
Maldon (Essex)	A1
Maltby UD	A
Malton UD	A1
Malvern UD	A
Manchester	A
Manningtree	A1
Mansfield MB	A
March	A1
Margate	A1
Market Harborough RD	A1
Market Harborough UD	A
Market Rasen UD	A1
Martock	A1
Maryport	A
Matlock UD	A
Melksham	A1
Melton Mowbray UD	A
Merionethshire	A
Merthyr	A
Mexborough UD	A
Middlesbrough CB	A
Middleton	A
Middlewich	A
Mildenhall	A1
Milford Haven UD	A1
Minehead	A1
Monmouth—Borough of	A
Monmouthshire	A
Morecambe	A
Moreton Valence	A1
Morley	A
Morpeth B	A
Morpeth RD	A
Mundesley	A1
Nantwich	A
Neath & Valley	A
Nelson	A
Newark MB	A
Newbury	A1
Newcastle-upon-Tyne CB	A
Newcastle-under-Lyme	A
New Forest District	A1
Newmarket	A1
Newport, Mon.	A
Newport Pagnell	A1
Newquay	A1
Newton Abbott	A1
Normanton UD	A
Northallerton District	A
Northallerton UD	A
Northampton CB	A
North Shields	A
North Walsham	A1
Northwich	A
Norton Radstock	A1
Norwich	A
Nottingham CB	A
Nuneaton MB	A
Oakham RD	A1
Oakham UD	A1
Okehampton	A1
Oldham	A
Ongar	A
Ormskirk	A
Ossett & Horbury	A
Oswestry	A
Oundle UD	A1
Oxford	A
Oxted	A1
Padstow	A1
Paignton	A1
Par	A1
Pembrokeshire	A
Penmaenmawr	A
Penrith UD	A
Penzance	A1
Peterborough, Soke of (Eastern Regional portion)	A1
Petersfield	A1
Pickering	A
Plymouth	A
Pontefract MB	A
Pontypool & District	A
Pontypridd District	A
Porthcawl	A
Portishead	A
Portland Bill	A1
Portsmouth	A
Port Talbot	A
Preston	A
Princetown	A1
Pudsey MB	A
Pulborough	A1
Radnorshire, County of	‡A1
Ramsgate	A1
Raunds UD	A
Rayleigh	A
Reading	A
Redcar B	A
Redditch UD	A
Redhill & Reigate	A
Rhondda Valley	A
Richmond B (Yorks.)	A
Ripon MB	A
Rochdale	A
Rochester	A
Ross-on-Wye	A1
Rossendale Valley	A
Rotherham CB	A
Royston	A1
Rugby MB	A
Rugeley UD	A1
Rushden UD	A
Saffron Walden	A1
St. Albans	A
St. Austell	A1
St. Helens	A
St. Neots	A1
Salisbury City	A1
Salisbury Plain	A1
Sandy	A1
Sawbridgeworth	A
Saxmundham	A1
Scarborough MB	A
Scunthorpe MB	A
Seaford & Newhaven	A1
Selby UD	A
Sevenoaks	A
Shaftesbury	A1
Sheerness	A1
Sheffield MB	A
Shepton Mallet	A1
Sherborne	A1
Shipley	A
Shoeburyness	A
Shoreham	A
Shrewsbury MB	A
Sirhowy Valleys	A
Sittingbourne	A1
Skegness UD	A1
Skipton UD	A
Sleaford UD	A
Slough, Windsor & Eton District	A
Smethwick CB	†A
Smettisham	A1
Solihull B	A
Somerset, County of	‡A1
Southampton & Eastleigh	A
Southend-on-Sea District	A
Southport	A
South Shields CB	A
Southwold	A1
Spalding UD	A1
Stafford MB	A
Staines	A
Stamford MB	A
Stantonwick	A
Stevenage	A
Stockport	A
Stockton RD	A
Stockton-on-Tees B	A
Stoke-on-Trent CB	A
Stoke Orchard	A1
Stourbridge MB	A
Stouport UD	A
Stowmarket	A1
Stratford-on-Avon MB	A
Stroud (RD Area)	A1
Sunderland CB	A
Sunningdale	A1
Sutton Coldfield MB	A
Swadlincote UD	A
Swaffham	A1
Swanage District	A1
Swansea	A
Swindon District	A
Swinton UD	A
Tamworth MB	A
Taunton	A1
Tavistock	A1
Tenterden	A1
Teignmouth	A1
Tewkesbury	A1
Thames Haven	A
Thetford	A1
Thirsk RD	A
Thorpe Bay	A
Thurrock UDC (including Tilbury, Grays and the area north to Billericay)	A
Todmorden MB	A
Tonbridge	A1
Torquay	A1
Totnes	A1
Tring	A1
Trowbridge	A1
Truro	A1
Tunbridge Wells	A1
Tynemouth CB	A
Ulverston	A
Uppington (Salop)	A1
Uttoxeter RD	A1
Uttoxeter UD	A1
Wakefield CB	A
Wakefield RD	A
Walsall CB	A
Walsend B	A
Walsden	A
Walton-on-Naze	A1
Ware	A
Warminster	A1
Warrington	A
Warwick MB	A
Wednesbury MB	A
Wellingborough UD	A
Wellington UD	A
Wellington (Somerset)	A1
Wells (Norfolk)	A1
Wells (Somerset)	A1
Welwyn	A
Welwyn Garden City	A
West Bromwich CB	A
Westbury	A1
Westcliff-on-Sea	A
Westerham	A1
West Hartlepool CB	A
Westmorland	A
Weston-super-Mare	A1
Weybridge	A
Weymouth (incl. Portland Bill, excl. Portland Stoneyards)	A1
Whitby UD	A1
Whitby RD	A1
Whitehaven	A
Whitley & Monkseaton UD	A
Whitstable & District	A1
Wickford	A
Widnes	A
Wigan	A
Wigton	A
Wilmslow	A
Wiltshire, County of	‡A1
Wimborne	A1
Wincanton	A1
Winchester	A1
Windermere	A
Wisbech	A1
Witham	A1
Withernsea UD	A
Woking	A1
Wokingham	A1
Wolverhampton CB	A
Wolverton District	A1
Woodbridge	A1
Woodhall Spa UD	A1
Woodstock	A1
Worcester CB	A
Workington	A
Worksop MB	A
Worthing	A1
Wrexham (incl. Cefn)	A
Wroughton	A1
Wylam	A
Wymondham	A1
Yate	A1
Yeovil Borough	A1
York CB	A
Ystalyfera	A

* For Birkenhead, Liverpool and London the rates are :—Craftsmen, 5s. 1d. ; Labourers, 4s. 5½d. In the case of London the rate beyond the 12-mile radius is : Craftsmen, 5s. 0½d. ; Labourers, 4s. 5d. † Plus 4d. per working day. ‡ This is the County rate and applies except where higher grades are stated.

NOTE.—Carpenters and Joiners providing own tools when employed in establishments operating under the Supplementary Rules for Woodworking Factories and Shops receive 2d. per day ; when employed on other building industry work, 4d. per day.

WOMEN'S RATES.—In all districts throughout the country the rate of wages for women engaged in craft processes is 4s. 1d. per hour. Women engaged on work other than craft processes, 3s. 9d. per hour.

For Building Trade Wages in Scotland, see page 765

For plasticity and firmness

Plasticity during application and firmness in situ are qualities which characterise a mortar made with Tunnel Masonry Cement.
This material is composed of cement, fillers and plasticisers in finely adjusted proportions. No lime is used in its manufacture, so there is absolutely no risk of blowing, spalling or disintegration when Tunnel Masonry Cement is used. On the contrary the mortar works well, stiffens quickly enough, has adequate strength, bonds well, is durable and provides a pleasing finish.

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TUNNEL

MASONRY CEMENT

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105 Piccadilly, London, W.1. Telephone: GROsvenor 4100

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A new development in the Lightweight Concrete field

LYTAG

lightweight aggregate

LYTAG is used for...

Structural Grades of Concrete

Precast Concrete Blocks

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Refractory Concrete

Lytag provides Resistance to weather, Low U value, Resistance to fire and High Compressive strength.

Lytag is a lightweight aggregate produced from pulverised fuel ash by a carefully controlled sintering process. Spherical in shape, it has a slightly roughened surface so providing an excellent key for the adhesion of cement.

It has been the subject of close scientific scrutiny throughout its development.

A number of technical papers on the different uses of Lytag are available and will be forwarded upon request.

LYTAG LIMITED

Manor Way, Boreham Wood, Hertfordshire

Telephone: Elstree 2854

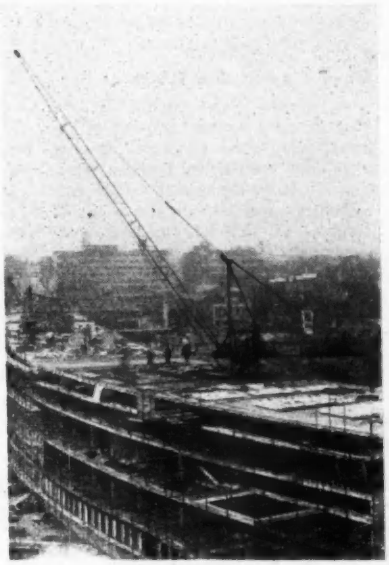
A LAING COMPANY

TECHNICAL REVIEW

This Review of plant, equipment and materials—in most cases new or with new features—is intended to give brief details only of the products mentioned. Notices are based on data supplied by the manufacturers. Additional information and prices can be obtained either direct or by using the prepaid Readers' Service form which appears on page 123 of this issue. The form can be used for more than one inquiry.

1. Contractors Plant

A TOWER CLIMBING CRANE of some versatility is now available in this country. Not only can it be used as a climbing crane, fixed mono tower crane or travelling tower crane but it can also be equipped with either a horizontal jib with trolley travel or a level luffing needle jib. Conversion from one form to another is said not to be difficult.



As a free-standing tower crane, it can be erected and will work on a prepared foundation free of all external supports up to a height of 100 ft. under the jib heel pen, which gives a maximum height of 180 ft. under the hook when the luffing jib is fitted. To provide safety and stability and to avoid tying the crane to the building, the bottom 30 ft. of the 100 ft. mast is composed of three specially designed sections which, whilst retaining the same crossed section as the main mast, are of stronger construction.
Abelson & Co. (Engineers), Ltd.,
Coventry-rd., Sheldon, Birmingham, 26.

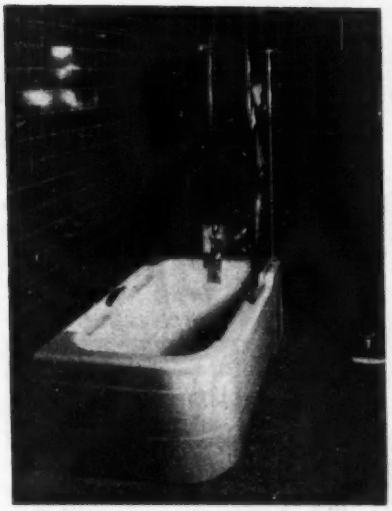
A new POWER RAMMER, for compacting trenches, earth, rubble, hardcore and other loose materials, utilises the direct fuel injection system. A flange mounted injection pump is used and this sprays atomised fuel directly into the cylinder at high pressure. This type of fuel system, which reduces fuel consumption, is the same as that used in a normal diesel engine.

Semi-automatic operation is another feature of the rammer. A common trip handle, carried on a guide handle, controls both the fuel injection and ignition systems to give immediate and continuous operation. Ignition is by magneto and sparking plug. The machine, 4 ft. 2½ in. in height and weighing 236 lb., jumps and falls 20 in. with an impact force of 9,000 lb. at an average rate of fifty times each minute.
Pelapone Ltd.,
Derby.

2. Building Board

Plastic-faced INSULATING PLASTERBOARD has been designed for interior ceiling lining. One surface of the plasterboard is covered with a thin sheet of plastic whilst to the other, a veneer of bright aluminium has been laminated for insulation purposes. The advantages of the plastic face are that it provides permanent decoration, is easy to clean and reduces maintenance to a minimum. The board is now being used to form roof linings or suspended ceilings for industrial buildings, hospitals, offices, shops and stores.
The British Plaster Board (Mfg) Ltd.,
82 Piccadilly, W1.

3. Household Equipment



One of the latest BATHS, which is cast in one piece, has a good line and is of practical design. Two recessed soap trays and a shaped handgrip are useful features as is the flush fitting plastic cupboard built into the front curtain. This has an opaque door and provides a handy place for storing toilet preparations. The whole cupboard can be removed to allow the plumber to reach the waste trap if blocked.
Allied Ironfoundries Ltd.,
28 Brook-st., W1.

4. Lifts

A PACKAGED ESCALATOR, recently installed in an Ilford Store, is said to have considerably reduced site labour. The machine was imported as a complete unit from Western Germany and took only a few days to place in position and connect to the electric supply.

In place of normal structural steel sections, the escalator frame is made from high tensile steel tube combining great strength and rigidity with light weight. This frame supports the entire machine with its driving gear so that a motor room is not required. At the top and bottom landings there are two level moving steps and the hand rail is synchronised with the step movement. The standard finish is in anodised aluminium.
Marryat & Scott Ltd.,
Wellington Works, Hounslow, Middx.

5. Miscellaneous

A new type of OPAL LAMPSHADE has been introduced for use in offices, hospitals, schools and commercial and industrial organisations. The shades, which are made from Rigidex high density polyethylene, are available in two sizes, 13 in. and 11 in. diameter, with a 4¼ in. hole in the top suitable for fitting to standard monkscap suspensions. The shades are intended for use with ordinary tungsten lamps and give an even light distribution with no glare; the 13-in. size will accommodate lamps of up to 300 watts. They are available individually or as complete fittings with either a brass monkscap and PVC suspension (any length) or chromium-plated with a 2ft. chromium tube suspension.

They are rigid and tough, have good resistance to chemicals, oils and greases, and can be washed in boiling water.
H. W. Field & Son, Ltd.,
Harold Wood, Essex.

6. Refuse Hoppers

A new REFUSE HOPPER has been designed with a half-inch asbestos rope seal which it is claimed will prevent smell leakage. Other advantages of the asbestos seal are its resistance to damage from incoming materials and its fire-proof qualities. It will give many years of service and can be changed, when necessary, in a few minutes without the use of adhesive. The hopper is self-closing and self-sealing with no external projections.
Metal Assemblies Ltd.,
43 Bycullah-rd., Enfield, Middlesex.

7. Ventilation

A DRAUGHTLESS DIFFUSER has been developed for use in offices, shops, dance halls and theatres where heating and ventilating plants are installed. It has an adjustable induction cone which allows the spread of air to be varied to suit the temperature conditions of the room. Control of the diffuser, either by hand or by remote control mechanism, is fairly simple and the effect from any adjustment is soon apparent.
Fairitt Engineering Co., Ltd.,
101, Sandford-road, Moseley,
Birmingham, 13.

News in Brief

Employment in Building

DURING FEBRUARY the number in civil employment is estimated to have increased by 21,000 to 23,338,000. There was an increase of 4,000 in the numbers employed in building and contracting, the figure for the end of that month being 1,494,000, according to Ministry of Labour and National Service Statistics.

Appointment

MR. G. W. STEAD has been recommended for appointment as Borough Engineer and Surveyor to the Metropolitan Borough of Deptford.

Welding Courses

THE SCHOOL OF WELDING TECHNOLOGY has issued its prospectus for the period April to October 1960. Courses listed include 'Welded Structures' from April 4 to 8, 'Residual Stresses and Stress Relief' on October 10 and 11, and 'Practical Control of Distortion' from October 12 to 14. Full details from the School at 54 Princes-gate, London, SW7. Residential accommodation is available.

Surveying and Levelling

SUMMER COURSES in surveying and levelling suitable for students who require them for professional examinations and for foremen in the building industry, will be held at the Department of Building, East Ham Technical College. The courses, one elementary and one advanced, will commence on May 16 and continue for seven weeks. The fees will be 15s. 6d. and 17s. respectively. Full details from the head of the department.

Plastering Contractors

THE FIRST Year Book of the National Federation of Plastering Contractors has been published. Among its contents is a report on the mechanisation of plastering work prepared by a special committee of the Federation. There is a complete list of members in each regional area. Copies may be obtained from the Federated Employers Press, Ltd., 82 New Cavendish-street, London, W1, price 3s.

Effluents and Water Treatment

THE FIRST EFFLUENT and Water Treatment Exhibition is to be held at Seymour Hall, London, W1, on October 18 to 21 next. Simultaneously, a convention will be held with the co-operation of a number of societies and institutions specialising in effluent and water treatment problems. Details from the Organiser, The First Effluent and Water Treatment Exhibition, Thunderbird Enterprises Ltd., 140 Cromwell-road, London, SW5.

Domestic Solid Fuel Appliances

FOLLOWING the announcement by the Ministry of Power in March, 1959, the Domestic Solid Fuel Appliances Approval Council assumed responsibility for the testing of domestic solid fuel appliances for use in permanent dwellings on April 1, 1959.

An agreed Code of Procedure has now been published and is available on application through the Press and Information Office, The Gas Council, 1 Grosvenor-place, SW1.

Europe's Housing Statistics

THE ANNUAL BULLETIN of Housing and Building Statistics for Europe, 1958, has been prepared by the United Nations Secretariat at the request of the Housing Committee of the Economic Commission for Europe. The bulletin contains sixteen tables showing demographic trends, the housing situation, analyses of construction, and the production of building materials. Copies are obtainable, price 3s. 6d., from Her Majesty's Stationery Office.

Concrete Facing Slabs

THE FOURTH (REVISED) EDITION of 'Concrete Facing Slabs' has been issued by the Cement and Concrete Association. The booklet, written by J. Gilchrist Wilson, FRIBA, provides information on the properties and uses of the material and discusses colour, texture, pattern and methods of surface treatment as well as problems related to the size, use of reinforcement, jointing and weathering. Free copies are available from the Association at 52 Grosvenor-gardens, London, SW1.

External Rendered Finishes

THE BUILDING RESEARCH STATION Digest number 131 (HMSO, price 4d.), now published, is intended to re-emphasise certain basic principles already dealt with in full by National Building Studies Bulletin No. 10 and the recently issued British Standard Code of Practice (CP 221 : 1960). The Digest refers particularly to new work where a rendering is applied for its appearance or to resist rain.

MAKE AND KEEP THOSE WALLS dry
WITH HIGH SILICONE CONTENT
Penetrex 53
This highly efficient Water Repellent is quickly and easily brushed or sprayed on to stone, brick, or any of the usual materials. Coverage of up to 270 sq. ft. to the gallon, depending on the porosity of the surface. Sizes from Pint Tins to 5-Gallon Drums. PENETREX is a clear colourless liquid, or can now be had in 12 pleasing colours for treating very porous surfaces. Ask your Merchant or write to mfrs., F. A. WINTERBURN LTD. Holborn Street, Leeds, 6. Phone 25692

The Comparative Cost of Heating

THE COAL UTILISATION COUNCIL have issued two useful folders setting out in table form the comparative costs of central heating and hot water. One folder deals with installations in small houses and the second with medium and large establishments. Costs are compared for various types of stokers and boilers using solid fuel, gas, electricity and oil. The folders may be obtained from the Council at 3 Upper Belgrave-street, SW1 (price 12s. 6d. for 100).

Climate Design in Animal Houses

THE INSULATION and ventilation required in piggeries to provide a specified internal climate in winter is the subject of 'Temperatures and Humidities in Pig Houses' prepared by the Building Research Station. Issued as a National Building Studies Research Paper No. 29 (HMSO, price 1s. 9d.) it provides data which will enable pig housing to be designed for given standards of internal temperature.

Road Construction Schemes

THE LATEST chart in the British Road Federation's series 'See How They Go' lists all road projects costing over £100,000 started in England and Wales from July to December last year. Major schemes started during the last six months of 1959 are to cost over £20m. Nearly half of this total, £9m., will be spent on the three viaducts now under construction for the Birmingham to Preston motorway at Cresswell, Staffs, Thelwall on the Lancashire-Cheshire border and Gathurst, Lancs. The chart also shows the Staines by-pass on the A 30 trunk road in Middlesex and Surrey, which is to cost £2,153,000.

Company News

TAYLOR WOODROW LTD. recommend a final dividend of 7½d. per share, less tax, on the 11¼m. ordinary shares for the year ended December 31, 1959.

In line with general policy of centralisation of offices of the Gliksten Group of Companies it is announced that MEREDITHS LTD., now at 11 Grosvenor-gardens, London SW1, have been transferred to Carpenters-rd., Stratford, E15, as from March 18. (Tel.: Amherst 3300.)

THOS. W. WARD LTD. have acquired the entire share capital of Anchor Insulating Co. Ltd., steam and refrigerating engineers, caulkers, etc., of Thermal Works, Woolwich Industrial Estate, London, SE18.

A meeting of the board of MYTON LTD., of Hull and London, held in London recently, approved the statement of accounts for 1959, which showed that the consolidated profit for the year ending December 31 was £77,313 (£60,049), after making provision for all charges.

ACROW (ENGINEERS) LTD. have declared a second interim dividend of 12½ per cent (less tax) (1959—10 per cent) on the ordinary shares of the company, payable on June 2.

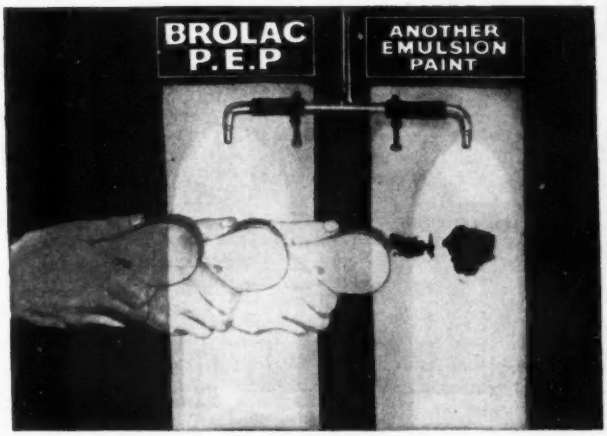
THE RUBEROID COMPANY LTD. recommend the payment of a final dividend of 11 per cent (less tax), making a total of 16 per cent for the year ended 1959.

GARDINER, SONS & CO. LTD. recommend the payment of a final dividend for 1959 of three per cent (less tax) which, with the interim dividend of two per cent (less tax), will make a total distribution of five per cent.

BAKELITE LTD. recommend the payment of a final ordinary dividend of 11½ per cent (less tax) on the shares of the company for the year ended December 31, 1959.

'GO-ANYWHERE'

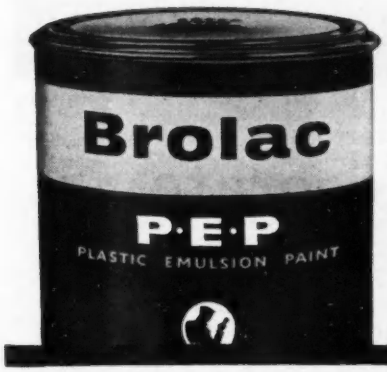
BROLAC P·E·P IS LABORATORY-PROVED



THE SOAK-and-SCRUB TEST

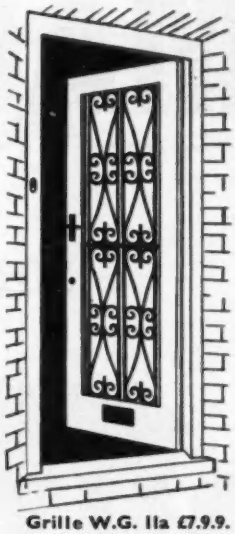
Brolac P.E.P. and an ordinary emulsion paint are applied over a high-gloss enamel surface and allowed to dry. Both paints are then thoroughly soaked and scrubbed—hard—with a stiff bristle brush. The ordinary emulsion paint peels off—but the Brolac P.E.P. is not damaged.

Here is proof that Brolac P.E.P.—with its exclusive Vinyl Co-Polymer base—is Britain's first truly 'go-anywhere' emulsion paint. Even over gloss enamel—even in kitchens and bathrooms—even out of doors, Brolac P.E.P. GOES ANYWHERE and STAYS and STAYS.



Made to last by **John Hall & Sons** *(Bristol & London) Ltd., Hengrove, Bristol 4. 1-5 St. Pancras Way, N.W.1. 26 Park Row, Leeds 1.*

GATES & GRILLES
for every home



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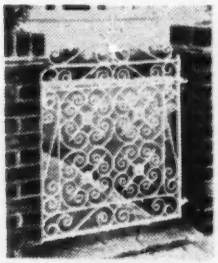

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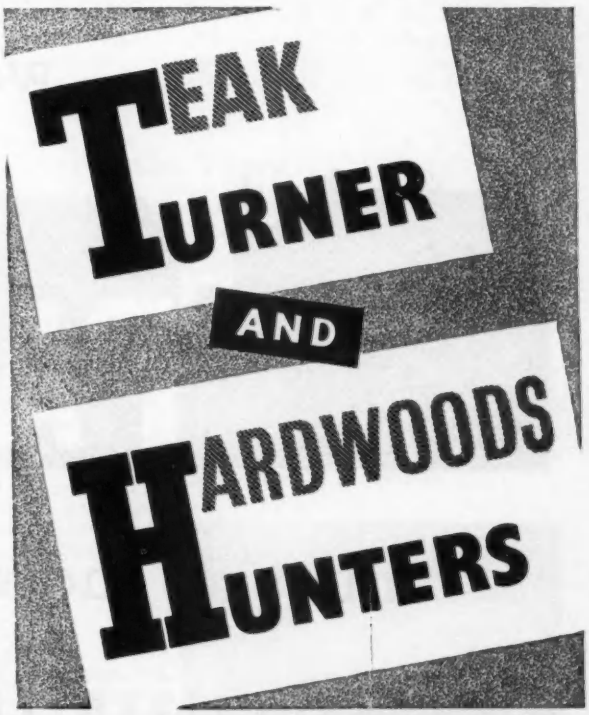

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Training Clerks of Works

Institute to Join Hands with the RIBA

'I FEEL THAT ARCHITECTS should take an interest in the educational and training problems of the clerk of works, and I am pleased to tell you that the Board of Architectural Education of the Royal Institute of British Architects has now been requested to examine the question of training with the Institute of Clerks of Works.' MR. A. G. SHEPPARD FIDLER, MA, V-PRIBA, City Architect of Birmingham, made this announcement at the Institute's annual dinner, held in the Connaught Rooms on April 9. The President, Mr. G. B. Grubb, FFS, MRSH, was in the chair.

Good Training Needed

The Institute (continued Mr. Fidler) had maintained its aims and objectives established 78 years ago, but good training was now needed in view of the highly complicated structures being built. 'Perhaps in the future that training will not necessarily be related to craft training; in any case it is imperative that the clerk of works should be completely up to date,' he added.

Mr. Fidler then gave the following estimate of the qualities required of the clerk of works: 'Not only must he be a fine upstanding man of commanding presence, but he must have many essential personal qualities such as industry, perseverance, tolerance, perspicacity, energy, intelligence, sobriety, impartiality and understanding. As well as being technically equipped to understand all drawings and secure the proper quality of materials and execution of the work, he must recognise and understand the work of the architect, the structural engineer, the heating and ventilating engineer, the electrical engineer, the quantity surveyor and the landscape architect; and in addition to all this he must effect a break through the language barrier which divides him from the builder's foreman!'

Architects should be vitally interested in the quality and status of the clerks of works on their jobs, and the Institute had the continuing objective of higher standards and higher status. But membership was limited and in the industry as a whole, the architect was inadequately represented on the site and received insufficient support in the very heavy load of responsibility which he had to carry. 'I hope very much that your membership will grow at a steadily increasing rate, but if your profession is to attract the right kind of man for exacting duties, it is essential that remuneration offered should be adequate to secure this end,' Mr. Fidler declared.

There were certain things the good clerk of works could do to help the architect. He could give a feed-back of information on how the job was going, drawn from his close observation, and he ought not to be afraid to make suggestions when he thought that some drawings might be incorrect. If given in the right way, no architect would resent the clerk's frank views.

Responding, THE PRESIDENT said the Institute was playing an important part in securing good building, and it was laying plans to attract young men with good training and expert in techniques who would be the clerks of works of the future.

Proposing the toast of 'The Architects, Surveyors and Engineers' MR. F. H. PECK, MRSH, chairman of the Examination Board, briefly outlined the method of recruiting to the Institute's ranks. In addition to the two regular methods of entering, the Institute's examination board had devised and would shortly bring into operation a means of interesting the younger man who, having taken a Higher National Certificate, could enrol for an approved post-HNC course which, when passed meant he became a Student of the Institute. After that he could take the qualifying exam for a clerk of works, though he could not become a Member until he was 28. They believed that experience as well as theoretic training was an essential.

'Another Jones Boy'

In the course of a response, MR. J. D. BROADBENT, ARIBA, gave a short resumé of the clerk of works' development from medieval times, and referred to 'Inigo, another of the Jones boys to find Royal favour, whose greatest work as Surveyor to the Crown was to build the Banqueting Hall in Whitehall. He signed the estimate which was for £10,000; it cost £15,000, and as a result he has been called the Father of British Architecture!' (laughter).

MR. A. L. HANDLEY, OBE (District Surveyor, City of London) also replied in a witty speech in which he outlined some of the difficulties of building in general and the District Surveyor in particular. 'In London' he said, 'we have bits of three different Building Acts going, in addition to what the LCC is pleased to call its General Powers Act. We also have model building by-laws. To help things along, bits and pieces of the by-laws have been handed back administratively to the 28 boroughs, so that no one now knows whether he should see the LCC, the District Surveyor or the Borough Surveyor. In addition we have the Clean Air Act. All this is coupled with a building system which is based on the somewhat curious belief that one gets the finest building by accepting the lowest price. No doubt that is just to keep the clerk of works on his toes,' commented Mr. Handley.

Changing Methods

Methods had certainly changed. In his early days as a district surveyor, Mr. Handley continued, he would be called to a site to check the bearing quality of foundations. He would call for a crowbar, which every reputable builder kept handy, and with it he would tap the ground and assess bearing quality as, say, 2 tons per square inch. 'Today it is all different,' said Mr. Handley. 'They get experts of all kinds down and a great deal of very expensive machinery, and spend some days on the job. Then they put the findings down in a report the size of a book, and at the end you find the answer: 2 tons per sq. in.' Nothing, in fact, displaced common or horse sense. The calculations could be dead right, but the building could still fall down.

'The Guests' were toasted by MR. A. L. WARREN, ARSANI, the response being by LT. COL. C. A. C. TURNER, CBE, FRICS.

Trade News

Changes of Address

IN ORDER TO CENTRALISE their Design, Sales and Manufacturing Departments under one roof, Mellor Bromley (Air Conditioning) Ltd., have moved to St. Saviours-road, Leicester.

BARRON AND SHEPHERD, LTD., materials handling engineers, have now combined their London and Dorking factories and City office, and as from March 25 are operating from their new factory at 315 Kennington-rd., SE11.

THE MIDDLESBROUGH branch office of A. Monk & Co. Ltd., civil engineering and building contractors has moved to North Eastern Bank Chambers, Marton-road, Middlesbrough (tel.: Middlesbrough 2391), where trade catalogues and literature will be appreciated.

London Office Opened

BOLTON GATE CO. LTD., manufacturers of collapsible doors and gates, opened a London office recently to assist architects and users in the Greater London area. The address is: Abbey House, Victoria-st., SW1. (Tel.: Abbey 6942.) The office will provide a technical advisory service and will be responsible for the supervision of all installations in the area.

Mobile Showroom

THE NEW MOBILE SHOWROOM of The Metal Agencies Co., Ltd., builders merchants, of Bristol, has been in operation since March 1. The exterior of the articulated caravan is lined with aluminium whilst the showroom itself, decorated by the use of the boards and laminates sold by the company, is so designed that fitments and display panels can be changed periodically.

OVERSEAS BUILDING

From Our Own Correspondents

ANGOLA.—The Cámara Municipal de Mocamedes, has called tender No. 1/60 for the construction of a municipal market. The closing date is April 24 and the provisional deposit 65,000 escudos.

BAHAMAS.—Plans have been announced for the construction of 300 homes in three districts of Nassau to be sold on long term mortgages. . . . The House of Assembly have approved the expenditure of £¼m. to carry out the first stage of the £2½m. sewerage scheme prepared by Messrs. Howard Humphreys & Sons, the UK consulting engineers. . . . It has been announced that Caribbean Chemical and Fertiliser Co. propose to construct a $15m. plant in the industrial area of the Bahamas to manufacture ammonia and various chemicals. The Port Authority in the Bahamas propose to build a permanent terminal building soon at Freeport. . . . It is reported that a syndicate headed by R. E. Dumas Milner of Jackson, Miss., have an ambitious plan for the development of Treasure Cay, Abaco, involving the construction of a 212-room residential club at a cost of £1m.

BELGIUM.—The Economic Co-ordination Committee of the Belgian cabinet has approved a project for the construction of a nuclear power station in the region of Givet, on the Belgian-French frontier, in conjunction with the French authorities. The joint venture will be undertaken within the terms of the Euratom—USA agreement on nuclear energy.

CANADA.—John Laing & Son (Canada) Ltd. has been awarded the contract for the construction of the approach piers to the Fraser river crossing of the new Port Mann bridge. The value of the contract is $3,799,059.

INDIA.—Two bulk power projects are to be erected in the Brahmaputra Valley. One scheme in the Khasi and Jaintia Hills is expected to generate 36,000 kW and is likely to be completed in 1963. In the Lakhimpur and Sibsagar districts there is an intended power project based on natural gas from the Naharkatiya oil fields with an installed capacity of about 50,000 kW. . . . India's first atomic power station providing 250-300 mW of electricity will be built in the new state of Gujorat.

KENYA.—An £11m. oil refinery is to be built on 300 acres of Crown land at Changamwe, Mombasa, where the Shell and BP groups have acquired land, by an agreement recently signed in Nairobi.

NIGERIA.—The Eastern Region Development Corporation have announced that they will construct two large hotels costing approximately £1m., one at the new Independence Layout, Enugu, and the other in Port Harcourt. An agreement has been signed in Enugu for the formation of a new company to be known as Nankani Cinemas (Nigeria) Ltd. It plans to build a network of cinemas in all the important towns of the area.

NORTHERN RHODESIA.—Work has been commenced by John Laing & Son (Rhodesia) Ltd., at Kitwe, on the construction of a new hotel and shops for Heinrich's Syndicate Ltd. The first phase of the scheme, including 14 ground-floor shops, comprises four storeys with provision for the addition of a further two floors to contain an extra 31 bedrooms. The first phase of the development is due for completion in June, 1961, and is valued at about £230,000. The architects are Horace Williams and Partners of Kitwe.

WEST INDIES (JAMAICA).—Government approval has been given for a scheme for the private building of nearly 2,000 houses by the West Indies Home Contractors Ltd. Another scheme is at Pembroke Hall where 850 houses and 14 blocks of flats comprising 168 units are to be built by Reema Jamaica Ltd. . . . The UK engineers, Messrs. Howard Humphreys & Sons, submitted a report containing certain recommendations for augmenting the water supply in the Kingston area. The most important recommendation was the construction of a dam in the Yallahs Valley area, 20 miles from Kingston with a storage capacity of 8,300m. gal. and a daily yield of 23m. gal. . . . Esso Standard Oil SA are to erect a bulk storage plant for petroleum products and a sea terminal at Grand Cayman. . . . A Faculty of Engineering is to be established at the University College of the West Indies. The buildings are estimated to cost £3m. Among other proposals is one for a Medical Faculty involving a building programme of over £2m.

South African Building Research

Dr. T. L. Webb has been appointed director of the National Building Research Institute, a division of the Council for Scientific and Industrial Research. He succeeds Mr. Stutterheim, who has been promoted.

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New South African Brick

A brick manufacturer in Durban, South Africa, has developed a new type of 'hollow' brick which is being used extensively on housing schemes. The brick, which is of standard size but about 30 per cent less in weight, gives a total saving of nearly one ton for every 1,000 used.

Building in Canada

Housing Decline Expected During 1960

SURVEYING CANADA'S house building industry, the February issue of Barclays Bank DCO's 'Overseas Review' says that the industry, which has been one of the main supports of the Government's full employment programme, expects a large reduction of its activities during 1960. Government officials connected with the housing programme have estimated that a minimum of 125,000 new houses will be started by builders during 1960, but the builders themselves believe 110,000 will be the top figure. This compares with 140,000 houses started during 1959 and 164,000 during 1958.

This building rate has not been excessive from the social point of view, as it is estimated that 500,000 Canadian families still live in dwellings regarded as sub-standard. Even though the building rate in recent years has been 172 to 195 per cent of new family formation, a steady upgrading of the standard of housing has maintained the deficiency, a result of rapid growth of incomes. Approximately 40 per cent of new houses are replacement dwellings for families improving their circumstances.

The European Timber Market

Effect of Increased Construction

THE RENEWED ECONOMIC expansion has had a beneficial effect on the timber market. In most countries, easier credit conditions and related measures, including more liberal fiscal policies, have stepped up residential and other construction and stimulated production in other wood-using industries. The resulting increase in consumption has brought about a marked rise in the volume of the European timber trade and a reversal of the downward price trend. The market, which was weak a year ago, has now become strong and buoyant.

These conclusions are noted in the latest review of the European timber market contained in the 'Timber Bulletin for Europe' (HMSO, price 7s.) published jointly by the secretariats of the Food and Agriculture Organisation and the United Nations Economic Commission for Europe. The Bulletin considers that the high level of consumption reached in 1959 will be maintained during 1960. Since stocks in importing countries are likely to be adequate, the import needs of European countries should equal those of last year. On the other hand, supplies are estimated to remain at about the 1959 level, and therefore seem to be in balance with expected requirements. The coming year should be a stable one for the timber market.

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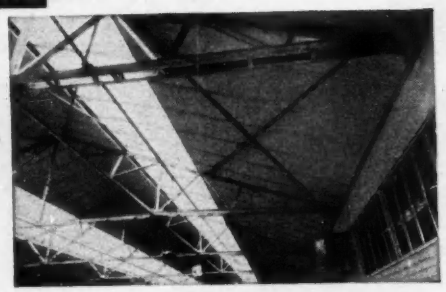
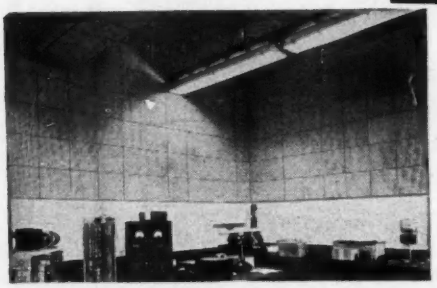


UNITEX ACOUSTILES



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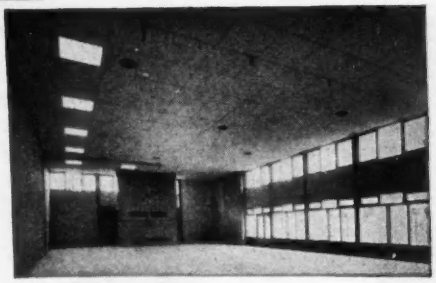

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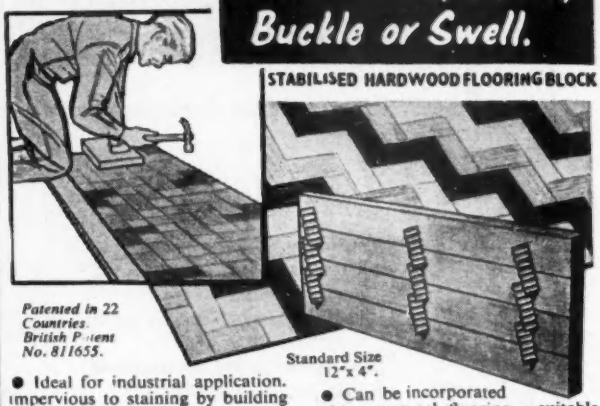

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SCOTTISH BUILDER

Improving Older Property

SPEAKING AT THE OPENING of Paisley's 'Improve Your House' week on April 7, Lord Craigton, Minister of State for Scotland, said he hoped the demonstration would help to draw attention to the grants which were available. 'Paisley is showing all of us what can be done,' said the Minister. 'Edinburgh is turning the old lands of the Royal Mile into modern homes while preserving their historical associations. There are many other substantial properties in other towns where similar work could be undertaken—for example, among the typical granite houses of Aberdeen and the red sandstone blocks in Glasgow. I hope that this will be only the first of a series of demonstrations or exhibitions of improved houses in other parts of Scotland.'

Glasgow Building Plans

JOHN LAWRENCE (GLASGOW) LTD. of Glasgow has offered to construct 306 houses in 15-storey blocks at Drumchapel at a cost of £881,000 and Glasgow Corporation has proposed acceptance. Scottish Office approval is required for these flats, which will cost approximately £2,700 each. Glasgow Corporation also propose more multi-storey flats at Garscube estate which was acquired some time ago.

Weir Housing Company is to be asked to discuss erection of small groups of semi-detached bungalows at various sites throughout the city where lightweight structures are required.

Scottish Housing, February

THE NUMBER OF new houses completed in Scotland in February was 1,639, a decrease of 432 compared with the same month last year. Completions this year now total 4,054, compared with 4,235 in the same period last year. The monthly return of the Department of Health for Scotland and the Ministry of Housing and Local Government is now obtainable from HMSO, price 3d. Of the 385,097 houses built in Scotland since the war, 350,885 were built by public authorities and 34,212 by private builders.

£8m School Building Programme

A PROGRAMME OF school building in Renfrewshire estimated to cost over £8m has been approved by the education committee, at a meeting held in Paisley recently. It will now be passed to Renfrew County Council, the authority responsible for building new schools, which will be asked to submit it to the Secretary of State for Scotland. The programme includes over 70 projects, and affects almost every town and village in the county. It will be ten years before the programme is completed.

New Buildings

PAISLEY.—Costain Concrete Ltd., Newmains, have been awarded a contract for new offices for Rowan & Boden Ltd.

LANARKSHIRE.—A public swimming baths is to be built by CC at Larkhall. Est. cost £200,000. They will be to championship standards.

GLASGOW.—Corpn. has approved in principle the erection of a multi-storey flatted factory block, or blocks, in city.

GREENOCK.—Corpn. to start a £60,000 extension scheme to increase water resources by 50 per cent. An extended filter station is planned.

DUNDEE.—Corpn. is considering multi-storey parking on site at Victoria-st.

SCOTTISH BUILDING TRADE WAGES

FOLLOWING are rates of wages authorised by the Scottish National Joint Council as from April 18, 1960. They apply to the whole of Scotland, including the islands of Orkney, Shetland, etc.

Grade A: Craftsmen, 4s.11½d.; Labourers, 4s. 4d.

THE BUILDER CONSTRUCTION NEWS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list, see previous issues. Those preceded by the symbol (A) are advertised in this number. The latest date for the receipt of tenders or applications appears above each paragraph. The symbol (R) preceding the entry indicates that applications must be received by this time.

BUILDING

APRIL 18

(AR) PLYMOUTH CITY C.—16 type 'E' flats at Pembroke-st., Devonport. City A. Dep. £3 3s.

APRIL 19

(AR) ENFIELD BC.—Erection of branch library and rates collection office at College Court, High-st., Ponders End. Boro' E&S. Dep. £2 2s. Tenders by May 17.

APRIL 21

(AR) LEEDS REGIONAL HOSPITAL BD.—Fixed price tenders for stage II of development at Hull Maternity Hospital, Hedon-rd., Hull. A to Bd. Dep. £2 2s.

APRIL 22

(AR) BRISTOL CITY C.—Fixed price tenders for a public convenience at Gloucester-rd. City A.

(AR) WEYMOUTH & MELCOMBE REGIS BC.—Firm price tenders for public conveniences at Lodmoor car park. TC.

APRIL 23

(AR) ESSEX CC.—Firm price tenders for alterations and extensions at 'Newport House,' Girls' Remand Home, Great Baddow, Chelmsford. County A.

(AR) SOUTHAMPTON CBC.—Erection of central health clinic at East Park-terr. (phase I—three-storey block). Boro' A. Tenders by May 30.

APRIL 25

(AR) BARNSLEY EC.—Erection of sec. mod. sch. at St. Helen's estate. Dyson, Cawthorne & Coles, 25 Regent-st., Barnsley, architects.

(AR) GRIMSBY CBC.—Fixed price tenders for a covered swimming pool at Scartho-rd. Boro' A, E&S.

(AR) PORTSMOUTH CITY C.—Erection of new branch college of technology, Highbury. City A. Dep. £1.

(A) SALFORD CITY C.—Firm price tenders for kitchen extension at Broughton Jewish prim. sch., Park-la., Salford 7. City E&S. Dep. £2 2s.

APRIL 27

(AR) WEST SUSSEX CC.—Fixed price tenders for:—(a) Fire station and divisional headquarters at Worthing. (b) Stage I of new sch. at Yapton, nr. Arundel. County A (separate contracts).

APRIL 29

(AR) NEW SARUM CITY C.—Fixed price tenders for a multi-purpose civic hall at Castle-st., Salisbury. Robert Potter & Richard Hare, F/ARIBA, De Vaux-hse., Salisbury, Wilts. Dep. £2 2s.

PORTSLADE-BY-SEA UDC.—Fixed price tenders for 12 flats at Vale-rd. S. Dep. £3 3s.

STROOD RDC.—Five aged persons' flats at Hermitage-rd., Higham. E&S. Dep. £5 5s.

MAY 2

ALDERSHOT BC.—Erection of detached house at Guildford-rd. Boro' E&S. Dep. £2 2s.

(A) SALTBURN & MARSKE-BY-THE-SEA UDC.—Two-storey block of 20 aged persons' flats at Marine-parade. E&S. Dep. £3 3s.

(A) STOURBRIDGE BC.—Shops, flats and bungalows at Rufford estate. Boro' E&S. Dep. £3 3s.

(A) WIGSTON UDC.—Extensions, additions and alterations at Newgate End depot. E&S. Dep. £5 5s.

MAY 3

(AR) TOTTENHAM BC.—18 flats at Park-la. Boro' E. Dep. £2 2s.

(A) WALSALL CBC.—Erection of clinic at Ross-rd., Coalpool estate. John H. Rendle, Lichfield-chbrs., 1 Leicester-st., architect. Dep. £3 3s.

MAY 5

(A) WELTON RDC.—Six dwellings at Langworth. Wm. Saunders & Ptnrs., 24 Castle Gate, Newark, Notts. Dep. £3 3s.

MAY 6

DUBLIN CORPN.—94 houses at Finglas West housing area. City T. Dep. £15 15s.

MAY 9

(A) READING CBC.—Firm price tenders for a building containing two flats and two garages, etc., at Corwen-rd., Tilehurst. Boro'

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WHALEY BRIDGE UDC.—Firm price tenders for 15 aged persons' bungalows at Park-rd. housing site. S. Dep. £2 2s.

MAY 10

DUBLIN CORPN.—22 maisonettes and 131 flats at Bridgefoot-st. housing area. City T. Dep. 15 gns.

(A) EAST RIDING OF YORKSHIRE CC.—Three classroom instalment to new county prim. sch. at Melbourne Way, nr. York. County A. Dep. £2 2s.

MAY 13

(A) NORTH RIDING EC.—Erection of Coatham county mod. sch., Redcar (stage 2). Denis Clarke Hall, 6 Masons Yard, Duke-st., St. James's, SW1.

MAY 20

(A) EALING BC.—16 flats at Lyncroft-gdns., W13. Boro' S. Dep. £5.

MAY 23

(A) FARNBOROUGH UDC.—(1) Construction of concrete bases for 144 garages. (2) Erection of 144 prefabricated garages on various Council housing estates. E&S.

(A) SALFORD CITY C.—Firm price tenders for alterations to Frederick-rd. transport depot. City E&S. Dep. £5 5s.

JUNE 2

(A) MIDDLESBROUGH CBC.—Erection of public conveniences at Albert Mews. Boro' E. Dep. £2 2s.

NO DATE

(A) GOSPORT BC.—Old people's homes at Chapel Row. Acting Boro' E. Dep. £2 2s.

SERVICES, PAINTING, MATERIALS, ETC.

APRIL 23

(A) DUNSTABLE BC.—Fixed price tenders for installation of hot water systems, etc., and redecoration of 18 houses at West-st. Housing Estates Mgr. Dep. £2 2s.

APRIL 25

(A) SHREWSBURY BC.—External painting of:— (a) 100 houses at Judith Butts-gdns., and (b) 122 houses at Meadows estate. Boro' S.

APRIL 26

(AR) CORNWALL CC.—Fixed price tenders for sub-contracts for:—(a) Metal windows, and (b) roller leaf sliding shutter doors in connection with proposed new fire station at Cambourne. County A.

APRIL 27

(AR) DURHAM CC.—(1) Renewal of floors at Shildon county and mod. schools, and (2) alterations to Ferryhill fire station. County A.

MAY 3

(A) UTTOXETER UDC.—Repair of fire damage at The Old Brewery, High-st. S. Dep. £2 2s.

MAY 9

(A) ESSEX CC.—Firm price tenders for external painting and general repairs to 20 houses and buildings at Straight-rd. and Horkesley-rd., Boxted, nr. Gloucester. County Land Agent and Valuer.

MAY 17

(A) HARROW BC.—Renewal of existing lead rising mains and cold water services, etc., at Corporation's Berridge, Wolverton-rd. (Stanmore) and Woodlands-dr. estates. Boro' E&S. Dep. £2 (three contracts).

MUNICIPAL AND CIVIL ENGINEERING WORKS, ETC.

APRIL 19

(R) SOUTHAMPTON CBC.—Roads and sewers at Redbridge roundabout housing site. Boro' E&S.

APRIL 21

(R) WANTAGE UDC.—Reconstruction of existing sewers at Wantage; comprising 1,350 lin. yd. of 6 to 24 in. dia. sewers, etc. Howard Humphreys & Sons, Ccl's constg. engnrs., Victoria Station House, Victoria-st., SW1. Dep. £5 5s. Tenders by April 26.

APRIL 25

RICHMOND (YORKS) BC.—Fixed price tenders for a main sewer, comprising 1,810 yd. of 15 to 27in. dia. concrete pipes; the crossing of the River Swale with two 6in. dia. spun-iron pipes by means of an inverted siphon; siphon chambers; storm water overflow chamber; manholes, etc. Boro' E&S. Dep. £2 2s.

TIPTON BC.—1,800 sq. yd. of carriageway, with kerbs and ancillary works, and 230 lin. yd. of 6 and 9in. dia. sewers, etc., at St. John's-rd. housing site. Boro' E&S. Dep. £2 2s.

APRIL 27

NEWCASTLE-UNDER-LYNE BC.—Surface dressing of 10,000 sq. yd. of classified and unclassified roads in Borough. Boro' E&S.

APRIL 29

(R) HORSHAM RDC.—Construction of 2,565 lin. yd. of small dia. sewers and rising main and a sewage disposal works, etc., at Partridge Green. Howard Humphreys & Sons, constg. engnrs., Victoria Station House, Victoria-st., SW1. Dep. £5 5s. Tenders by May 10.

APRIL 30

HERNE BAY UDC.—Surface dressing of 36,000 sq. yd. of road. S.

MAY 2

EAST SUFFOLK CC.—Construction of new carriageway at Campsey Ash-Butley-rd. from Tunstall Common via Drydale Bottom to Wantisden Corner, a distance of 4,200 lin. yd. County S. Dep. £5.

HESTON & ISLEWORTH BC.—Widening and reconstruction of Cranford-la., consisting of breaking out 6,000 sq. yd. of existing carriageway and construction of 12,500 sq. yd. of new carriageway in dry lean-mix concrete with bituminous, surfacing. Boro' E. Dep. £2 2s.

HUDDERSFIELD CBC.—Construction on sections 1 to 5 of the inner ring road, comprising approx. 1,200 lin. yd. of rc dual carriageway, hot rolled asphalt-surfaced road and three traffic roundabouts, etc. Boro' E&S. Dep. £10

MAY 3

ST. NEOTS UDC.—Construction of a rc service reservoir of 200,000 gal. capacity on site adjacent to existing reservoir at Potton-rd. John Taylor & Sons, Artillery Row, Victoria-st., SW1. Dep. £5.

MAY 9

PETERSFIELD UDC.—Roads, sewers and car park at central car park site. E&S. Dep. £2 2s.

MAY 19

CANVEY ISLAND UDC.—9,000 sq. yd. of rc carriageways, kerbs and SW drainage in private streets within Urban district. E&S. Dep. £3 3s.

MAY 23

BEESTON & STAPLEFORD UDC.—Fixed price tenders for widening and reconstruction of Derby-rd. from Wollaton Vale to Bramcote, approx. 1½ miles in length, with the construction of a roundabout. E&S. Dep. £5.

MAY 25

BRIGHTON CBC.—Reconstruction of Dyke-rd. drive bridge. Boro' S. Dep. £10.

GENERAL BUILDING WORK (LONDON)

FELTHAM.—New School.—The Middx. CC's 1961/62 Building Programme includes the provision of a new sec. sch. for 720 boys on a seven-year course, on the northern part of the former Hanworth Air Park. Subject to MoE approval and consent to loan and planning permission, the CC approves the erection of this sch., known as Hanworth grammar sch. Est. cost £252,845.

LONDON (City).—Cleansing Depot and Wharf.—The Corpn. of London are constructing a new public cleansing depot and wharf on the south side of Upper Thames-st., next to Cannon-Street Railway Station. This will replace the present depot at Letts wharf on the South Bank, close to Waterloo Bridge, where the Corpn. has held a lease since 1860. The project has been planned and designed under the direction of the City E. Mr. F. Forty, with advice from Sir Hugh Casson on elevational treatment. Construction commenced in September 1958, and it is anticipated that it will be completed by the autumn of 1962 at a cost of £1¼ m. Howard Farrow Ltd., are the contractors for the first section of the work, now approaching completion. Mott, Hay & Anderson have directed and supervised the depot foundations, the docks and new wharf. Redpath Brown & Co. Ltd., are at present erecting the depot structural steel frame, designed in the City E's Dept. The final contract to complete the building, which will include an office block for the department and a number for flats for residential personnel, will be started in the autumn.

SOUTHGATE.—New College.—Subject to the approval of the MoE, and consent to loan and planning permission, Middx. CC approves the erection of the Southgate Technical College. Est. £414,500.

TWICKENHAM.—Alterations and Extensions.—Middx. CC, subject to MoE approval and consent to loan and planning permission, approves the third phase of extensions and alterations at Twickenham county sch. Est. £46,620.

(PROVINCIAL)

ANNFIELD PLAIN.—Extensions covering 100,000 sq. ft. are proposed for Messrs. Ransom & Marles Bearing Co. Ltd., Greencroft Estate, Annfield Plain. J. H. Napper & Partners, 133 Osborne-rd., Jesmond, Newcastle-on-Tyne, architects.

ASHTON-IN-MAKERFIELD.—Erection of additional classrooms at St. Peter's CoE sch., Bryn, proposed by Lancs EC.

BOOTLE.—Bootle Masonic Hall propose a two-storey extension to their premises.

BOURNEMOUTH.—TC to ask MoE to approve extensions, comprising a seven-storey block for the technology departments, at the Municipal College, as part of the 1962-3 building programme. . . . EC seeking permisssion to rebuild Avonbourne girls' and Portchester boys' sec. schools.

ESTON (Yorks).—The South Durham Steel & Iron Co. Ltd., to construct a new beam mill at their Cargo Fleet works. Scheme is being considered by the planning authorities.

FARNBOROUGH.—Some 170 acres of land, centrally situated off the main Farnborough road, will be developed by Daniel T. Jackson Ltd., at a price understood to be in the region of £500,000. The estate would comprise some 1,500 dwellings, catering mainly for the professional, technical and medium income groups.

KIDDERMINSTER.—BC received Ministry approval for phase 3 of lay-out for Habberley Housing estate. . . . W. Butler & Co. Ltd. propose erecting a PH at Habberley estate.

LANCS.—Major School Building Programme.—1st phase of new premises at CoE infant and jun. sch., Grange; extensions at Dowdales county sec. sch., Dalton-in-Furness; erection of Ridge county sec. sch., Lancaster; extensions at Carr Hill county sec. sch., Kirkham; extensions at Hodgson county sec. sch., Poulton-le-Fylde; extensions at county sec. sch., Thornton-Cleveleys; extensions at Carr Head jun. county sch., Poulton-le-Fylde; erection of Bamber Bridge county sch., Walton-le-Dale; 1st phase of extensions to Nelson grammar sch., Nelson; 1st phase of county sch., Padiham; 1st phase on new county sec. sch., and 1st phase of new grammar sch. at Accrington; new premises at grammar sch., Haslingden; erection of new county sec. sch. and St. Thomas's Aquinas RC sec. sch., Darwen; extensions at Worden county sec. sch., Leyland; erection of annexe to College of Further Education, Lytham St. Annes; erection of new premises at School of Navigation; 3rd phase of new premises at College of Further Education, Nelson & Colne; new building at College of Art and hostel for 50 students at Colleges of Art and Further Education, Lancaster & Morecambe.

LIVERPOOL.—Regional Hospital Bd. pro-

Contracts Placed

We are glad to receive from architects and quantity surveyors for publication details of contracts placed to the value of £20,000 or over. Such information should reach the Editor as soon as possible after the contract is signed. Names of the architect and other consultants associated should be given.

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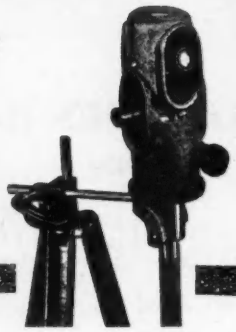

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pose repair works to various wards at Deva Hospital. Est. £54,000. . . . TC propose block of 15 flats at Warwick-sq. and 12 aged persons' dwellings at Aigburth-dr. . . . Liverpool Co-operative Soc. Ltd., propose a single-storey supermarket at Childwall Valley estate.

MANCHESTER.—TC propose 1,480 houses for 1960-61, 2,850 in 1961-62 and 3,000 in 1962-63. . . . The Church of Jesus Christ of Latter Day Saints, Princes Gate, Kensington, SW7, propose erection of a new Mormon Chapel at Altrincham-rd./Princess Parkway. Est. £100,000. . . . Following for Regional Hospital Bd.:—New maternity unit at Hope Hospital, Salford, and extensions/developments at Blackburn Royal Infirmary.

NANTWICH.—RDC propose 94 bungalows at Hunsterson/Shavington/Weston/Bulkeley/Broomalll/Sound/Norbury/Haslington/Wistaston.

NEWCASTLE-ON-TYNE.—City C is being recommended to approve generally a £900,000 scheme for a roundabout and underpass at the junction of Pilgrim-st./Mosley-st./City-rd. and the Tyne Bridge Approach. This replaces a previous plan for a roundabout only.

ROMSEY (Hants).—A proposal for a joint scheme of development on site of a number of premises at Church-st. is being considered by BC.

SALISBURY.—Improvements are to be made to St. Nicholas's Hospital. . . . City C approved the provision of a new sewage disposal works at Petersfinger. Est. £847,899.

WIGAN.—BC propose 198 dwellings, with spaces for 124 garages, at Giants Hall, Gidlow. . . . EC propose girls' high sch. at Whitley.

WINCHESTER.—RDC hope to build 90 houses and a further 100 garages on Council estates during coming financial year.

TENDERS

(A) Denotes *accepted*.
(PA) Denotes *provisionally accepted*.
(RA) Denotes *recommended for acceptance*.
(AM) Denotes *accepted subject to modification*.
(GD) Denotes *accepted subject to approval by appropriate Government Department*.

ASHTON-IN-MAKERFIELD.—Erection of Edmund Arrowsmith RC sec. mod. sch. for Archdiocese of Liverpool. Weightman & Bullen, architects. Todd & Ledson, quantity surveyors. (A) J. Gerrard & Sons Ltd., £150,000.

BECCLES.—15 houses and 18 garages at Queen Elizabeth-dr. for BC. (GD) W. G. Packham, £31,567.

BELLINGHAM (Northd.). — Proposed sewerage and sewage scheme at Otterburn for RDC. E. G. Lediard, 4 Eldon-sq., Newcastle-on-Tyne, constg. engr. (A) J. W. & S. Dorin, 64 Grosvenor-dr., Whitley Bay.

BIRMINGHAM. — Following for City C:— Extensions at Burlington prim. sch. (A) J. &. F. Wootton Ltd., £10,351.—Alterations and additions at College-rd. prim. sch. (A) A. Franklin & Sons Ltd., 44 Hampstead-rd., Birmingham 19, £23,491.—Extensions at Portland sch. (A) W. T. Pickering (Builders & Contractors) Ltd., 1 Alcester-rd., Birmingham 13, £43,214.—Improvements at Prince Albert sch. (A) John Dallow & Sons Ltd., John-st., Blackheath, £15,890.—Erection of new sch. buildings and alterations to existing William Murdoch sec. sch. (A) B. Whitehouse & Sons Ltd., Monument-rd., Edgbaston, Birmingham 16, £148,799.—34 dwellings and 32 garages at Hagley-rd., Edgbaston. (A) Alfred Langley Ltd., Manor Farm-rd., Tyseley, Birmingham 11, £78,415.—Erection of fire station at Brook-la., Kings Heath. (A) F. Deeley Ltd., High-st., Harborne, Birmingham 17, £57,999.—Proposed new ambulance sub-depot at Bristol-rd., Bournbrook. (A) Turriff Construction Corporation Ltd., Budbrooke-rd., Warwick, £51,978.—147 lock-up garages on various sites in South-West Birmingham. (A) M. Woods Ltd., Inkberrow, Worcs., £25,625.

BOLTON.—New shop premises for Boots Pure Drug Co. Ltd., Nottingham. (A) Henry Boot & Sons Ltd., Banner Cross Hall, Ecclesall-rd. South, Sheffield 11.

BOOTLE.—38 shops, garages and maisonettes at Netherton for Central Land Investments Ltd. (A) George Wimpey & Co. Ltd., Netherfield-rd., Liverpool 5.

BUXTON.—Alterations and new practical block at Silverlands county sec. sch. for Derbys. EC. (A) J. W. Wildgoose & Sons Ltd., Matlock, £21,556.

CAMBERWELL.—524 dwellings, etc., at Acorn-pl. (No. 3 development area), for MBC. (GD) Token Construction Co. Ltd., £1,421,000.

CHESTER.—110 houses and flats and 20 lock-up garages at Plas Newton estate for City C. (A) Thos. Warrington & Sons Ltd., 82 Station-rd., Ellesmere Port, Cheshire.

COVENTRY.—Erection of Potters Green prim. sch. for City C. (A) G. W. Deeley Ltd., £54,679.

DENBY DALE.—15 old person's bungalows, etc., at Newlands-ave., Clayton West/Smithy-la., Scelmanthorpe/Golthwaite-la./Denby Dale. Joseph Berry & Sons, Market Walk Huddersfield, architects. (A) Gregory Construction (Yorkshire) Ltd., Wellesley-hse., Botham Hall-rd., Longwood, nr. Huddersfield.

DUNDEE.—Factory block for Industrial Estates Management Corpn. for Scotland. Wylie, Shanks & Underwood, Clairmont-gdns., Glasgow C3, architects. James Barr & Son, quantity surveyors. (A) Holland & Hannen and Cubitts (Scotland) Ltd., Royal-terr., Edinburgh 7, £300,000.

FARNBOROUGH.—Erection of a five-storey office block and single-storey factory extension at Tower Hill for Solartron Electronic Group Ltd. Raglan Squire & Ptnrs., architects, engineers and surveyors. (A) Taylor Woodrow Construction Ltd. Est. £350,000.

FELLING.—105 flats and 18 houses at Wellington-st. area for UDC. (A) John Clark & Son (New Seaham) Ltd., Gregson-ter., New Seaham, Co. Durham.

HAMPSHIRE.—Erection of Alverstoke new county infants' sch., Gosport, for CC. County A is Simpson Low. Dawson, Butler & Barclay, quantity surveyors. (A) Hawkins Bros. (Gosport) Ltd., Westfield-rd., Gosport, Hants., £35,962.

HANTS.—Following for CC:—Erection of Hedge End county sec. sch. County A is Simpson Low. Venning, Hope & Ptnrs., quantity surveyors. (A) H. E. Collins Ltd., Eastern-rd., Farlington, Portsmouth, £155,520. —Erection of courthouse, police station and offices at Totton. Crump & Ptnrs., quantity surveyors. (A) A. J. Dunning & Sons (Weyhill, Ltd., Weyhill, nr. Andover, Hants, £78,150.

JARROW.—84 houses at Boldon overspill area for TC. (A) Whittal (Builders) Ltd., West Boldon, Co. Durham, £120,016 (in lieu of higher direct labour estimate rejected by Ministry).

LEEDS.—New warehouse at Cabbage Hill for Marfac Ltd. (A) Leonard Fairclough Ltd., Chapel-st., Adlington, Ches.

LIVERPOOL.—Flats and maisonettes at Beechwood Green for TC. (A) Direct labour.

(GD) LONDON (British Railways).—Contracts placed by Southern Region:—Chichester Station, new warehouse, B. L. Hale & Son Ltd., Bognor Regis.—Surbiton, improvements to public inquiry office, G. E. Wallis & Sons Ltd., WC2.

(GD) LONDON (MoW).—Contracts placed for week ended April 1:— *Bedfordshire:* Ministry of Aviation storage depot, Elstow, supply and erection of hoist block, C. Hutton & Co. Ltd., 9 Station-rd., Bletchley, Bucks; Head Post Office, Luton, internal painting and cleaning, Carter & Simpson (Builders) Ltd., 89 Stuart-st., Bedford. *Berkshire:* Telephone exchange centre, Bracknell, erection, Collier & Catley Ltd., King's Meadow-rd., Reading. *Buckinghamshire:* Telephone exchange, New-st., Aylesbury, painting and pointing, J. J. Hamilton & Sons Ltd., 4 Perrin-st., Headington, Oxford. *Derbyshire:* Hardwick Hall camp, Chesterfield, demolition of WD accommodation, J. J. Gallagher Ltd., 28 Lea-rd., Birmingham 11. *East Lothian:* Head Post Office, Dunbar, reconstruction, R. Banks & Son, 133 Inveresk-rd., Musselburgh. *Glamorgan:* Joint Office building, Water-st., Neath, extension, Griffith Davis & Co. Ltd., Paxton Yard, Swansea. *Lanarkshire:* Reception centre, Airport, Bishopbriggs, alterations, Wm. Crawford & Son (Contractors) Ltd., 10 Minerva-st., Glasgow C3. *Lancashire:* Telephone exchange, Wilmslow-rd., Didsbury, erection, P. Hamer Ltd., Park-st., Swinton; Post Office motor transport workshops, Collins-rd., Bamber Bridge, roof work, F. Parkinson Ltd., Mowbray-dr., Blackpool. *London:* British Museum, WC1, installation of electrical equipment, Brush Electrical Engineering Co. Ltd., Loughborough, Leics.; 103 Oxford-st., W1, adaptations, E. J. Lacey & Co. Ltd., Steele-rd., NW10. *Middlesex:* Telephone exchange, Ashford, erection, Farrans Ltd., 33 Upper Brook-st., W1; Head Post Office, College-rd., Harrow, erection (2nd stage), B. Sunley & Sons Ltd., 25 Berkeley-sq., W1. *Northumberland:* Telephone exchange, Morpeth, erection, R. W. Bell & Co. (Contractors) Ltd., Mistletoe-rd., Jesmond, Newcastle-on-Tyne; Ministry of Agriculture, Kenton Bar, Newcastle-upon-Tyne, renewal of bituminous felt roofing, Val de Travers Asphalte Ltd., Chain Bridge-rd., Blaydon, Durham. *Nottinghamshire:* Ministry of Health Hospital, Rampton, adaptations, R. Moore & Son (Sheffield) Ltd., Spencer-st., Mansfield. *Pembrokeshire:* Post Office, Hawthorn Rise, Haverfordwest, erection of engineering depot, Gee, Walker & Slater Ltd., Coychurch-rd., Bridgend, Glam. *Somerset:* Post Office radio station, Goosemor, erection, Stansell & Son (Taunton) Ltd., Billet-st., Taunton; Post Office radio station, East Harptree, erection, Stone & Co. (Bristol) Ltd., Redland-rd., Bristol 6. *Staffordshire:* Ministry of Pensions and National Insurance, Pinfold-st., Darlaston, alterations, W. Neeman (Contractors) Ltd., 207 Spon-la., West Bromwich; Joint Office building, Little Newport-st., Walsall, adaptations, St. Ledger & Co., Cannock-rd., Willenhall. *Stirlingshire:* Government building, Station-rd., Kilsyth, erection, J. B. Bennett (Glasgow) Ltd., 26 Market-st., Kilsyth. *Surrey:* Ordnance survey office, Hinchley Wood, re-arrangement of studios, W. & M. Negus Ltd., King James-st., SE1. *Wiltshire:* Tidworth Garrison, provision of petrol pumps and tanks, Avery-Hardoll Ltd., Oakcroft-rd., Chessington, Surrey. *Worcestershire:* Head Post Office, Stourbridge, reconstruction, D. B. Evans (Bilston) Ltd., Oxford-st., Bilston, Staffs.

(GD) LONDON (War Dept.).—Contracts for week ended March 25:— *Breconshire* (Sennybridge): Building, T. F. Howells Ltd., Caerphilly. *Co. Durham* (Barnard Castle): Miscellaneous, G. Stephenson Ltd., Bishop Auckland. *Cumberland* (Longtown): Building, Eden Construction Co. Ltd., Carlisle. *Essex* (Colchester): Painting and decorating, George Jones & Son (Contractors) Ltd., London, W8. *Hampshire* (Tidworth): Roadwork, O. J. Elliott & Co. Ltd., Bristol. *London and Surrey:* Painting and decorating, Arnold Sharrocks Ltd., London, SW11. *Oxfordshire* (Bicester): Glazing bars, Faulkner Greene & Co. Ltd., London, SE1. *Shropshire* (Donnington): Building, Bertram E. Pugh & Son, Pontesbury. *Stirlingshire* (Stirling): Building, Robert Beatson & Son, Alloa. *Surrey* (Brookwood): Building, Frank Batty & Smith

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(GD) LONDON (War Dept.).—Contracts placed for week ended April 1:— *Berkshire* (Didcot): Grass cutting, E. Doe & Sons (Contractors) Ltd., Ongar. *Devon* (Tavistock & Barnstaple): Roadwork, W. & J. Glossop Ltd., Exeter. *Co. Down* (Holywood): Building, Baird Bros., Belfast. *Essex* (Shoeburyness): Roadwork, W. & C. French Ltd., Romford. *Gloucestershire* (Ashchurch): Repairs to boilers, G. H. Marshall Ltd., Reading. *Hampshire* (Aldershot): Water supply, C. H. Kempton & Co. Ltd., London, building, Sherfields (Farnham) Ltd., Farnham. *Kent* (Chatham): Building, Medcesters Ltd., Gillingham. *Middlesex* (Hounslow): Building, H. Goodsell & Son Ltd., Maidstone. *Midlothian* (Dreghorn & Glencorse): Miscellaneous, John Roxby Suttees Ltd., Blackhill, Co. Durham. *Northumberland* (Otterburn & Redesdale): Miscellaneous, T. Muckle & Sons Ltd., Rothbury. *Somerset* (Watchet): Miscellaneous, C. H. & G. Batten, Minehead. *Shropshire* (Donnington): Relaying steam mains, D. B. Evans (Bilston) Ltd., Bilston. *Yorkshire* (Catterick): Painting & decorating, Reid Bros., Carlisle; painting & decorating, J. D. Tighe & Co., Kirton Lindsay; building, M. J. Gleeson (Contractors) Ltd., Sheffield 8.

LUTON.—Fixed price tenders for two two-storey blocks of ten old people's dwellings at Farley Hill for BC. (A) Drabble Construction Ltd., Vicarage-rd., Bletchley, Bucks., £24,508.

MIDDLESBROUGH.—Supply and installation of heating system and other mechanical services at Corporation's new central works depot. (A) Hope's Heating & Engineering Ltd., Leeds, £25,089.

MORLEY.—Fire station at Corporation-st., for West Riding CC. (A) J. B. Brook & Sons, Manchester-rd., Huddersfield, £25,716.

NEWCASTLE-ON-TYNE. — Alterations for new premises at Mosley-st. for Leicester Permanent Building Society. (A) Thomas Clements & Son, Selbourne-gdns., Newcastle (builders), Redpath Brown & Co. Ltd., Dean-st., Newcastle-on-Tyne (steelwork).

NORTH'D.—Proposed prim. sch. at Dinnington for CC. County A is C. C. Brown. (A) Cawood Wharton & Co. Ltd., Harrogate, £20,000 (first stage).

PADIHAM.—16 dwellings at Slade-la. for UDC. (A) Gregory Housing Ltd., £23,520 (revised tender).

PLYMOUTH.—88 flats, garages and laundries at Albert-rd. for City C. H. J. W. Stirling (City A), architect. W. T. Hills & Co., quantity surveyors, in association with City A's dept. (A) Selleck, Nicholls & Co., Ltd., £142,879.

SEDGLEY.—12 three-storey flats at Ruiton Farm site for UDC. (A) D. C. Evans (Bilston) Ltd., Oxford-st., Bilston.

SHEFFIELD.—Erection Peter Robinson Building at High-st. for Montague Burton Ltd. (A) M. Harrison & Co. (Leeds) Ltd., Post Hill Quarries, Farnley, Leeds.

SHOREDITCH.—Office building, covering 134,000 sq. ft. and comprising basement, ground and six floors, at City-rd. and Leonard-st. development (stage 1), for Commercial Developments Ltd. A. G. Porri & Ptnrs., architects. (A) Higgs & Hill Ltd. Est. £350,000.

SOUTHEND-ON-SEA. — Old people's home at Delaware-rd. for CBC. Borough A is P. F. Burridge. Peekes & Mann, 23 Bloomsbury, London, SW1, quantity surveyors. (A) French & Egerton Ltd., 8a Milton-st., Southend-on-Sea, £65,237.

STOCKTON-ON-TEES.—57 houses at Hardwick estate for TC. (A) L. Brown & Son, Boathouse-la., Stockton, £87,335.

SUNDERLAND. — Reconstruction and widening of Chester-rd. Bridge for TC. (A) Direct labour, £19,823.—10 bungalows at Ryhope-st., Ryhope, for RDC. (A) Direct labour.

THORNABY-ON-TEES.—20 flatlets, wardens' quarters and communal and ancillary rooms for BC. (A) John Bonar, Stockton-on-Tees, £29,446.

WEST HARTLEPOOL.—54 'Clinecon' houses for North-Eastern Housing Assn., Windsor-ter., Newcastle-on-Tyne. Matkin & Hawkins, Barclays Bank-chbrs., Fawcett-st., Sunderland, architects. (A) Thomas Armstrong Ltd., Robson-st., Newcastle-on-Tyne.

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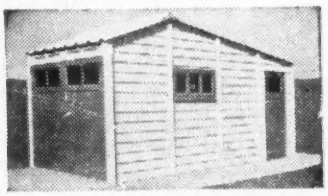

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ATTENTION ADVERTISERS

Classified advertisements in this section can be accepted up to 12 o'clock noon on the TUESDAY prior to issue. It is regretted that advertisements cannot be accepted by telephone.

CONTRACTS

SALTBURN AND MARSKE-BY-THE-SEA URBAN DISTRICT COUNCIL.

PROPOSED ERECTION OF A TWO-STOREY BLOCK OF 20 AGED PERSONS FLATS AT MARINE-PARADE, SALTBURN-BY-THE-SEA.

TENDERS are invited for the ABOVE SCHEME from competent Contractors.

Copies of Bills of Quantities, General Conditions and Form of Tender will be available after 5th APRIL, 1960, from the Engineer and Surveyor to the Council, on payment of £3 3s. deposit, which will be refunded on receipt of a bona fide Tender. Drawings may be seen at these Offices during normal working hours.

Tenders in plain sealed envelopes and bearing no indication of the sender, endorsed "Marine Parade Flats," must reach the undersigned not later than NOON on MONDAY, 2nd MAY, 1960.

L. E. HORGAN,
Clerk of the Council.

Council Offices,
Saltburn-by-the-Sea,
Yorkshire.
31st March, 1960.

CITY OF SALFORD.

PROPOSED KITCHEN EXTENSION AT BROUGHTON JEWISH PRIMARY SCHOOL, PARK-LANE, SALFORD, 7.

FIRM PRICE TENDERS are invited for the CONSTRUCTION OF A KITCHEN EXTENSION at Broughton Jewish Primary School, Park-lane Salford, 7.

Conditions of Contract and Drawings may be inspected at, and Bill of Quantities and Form of Firm Price Tender obtained from, The City Engineer and Surveyor's Department, Town Hall, Salford, 3, on payment of a deposit of £2 2s., which will be returned on submission of a bona fide Firm Price Tender not subsequently withdrawn.

Firm Price Tenders on the prescribed form, sealed in the envelope provided and bearing no other mark or identification, must be forwarded to the undersigned so as to be received not later than 10 a.m. on MONDAY, 25th APRIL, 1960.

The Council does not bind itself to accept the lowest or any Firm Price Tender.

R. RIBBLESDALE THORNTON,
Town Clerk.

FARNBOROUGH URBAN DISTRICT COUNCIL.

144 GARAGES.

TO ROAD CONTRACTORS.

TENDERS are invited for the CONSTRUCTION OF CONCRETE BASES FOR 144 GARAGES on various of the Council's Housing Estates together with retaining walls, carriageways, surface water drains and other incidental works.

Specification, Bills of Quantities, Form of Tender can be obtained from the Council's Engineer and Surveyor upon payment of a deposit of £2 0s. 0d., which will only be refunded on receipt of a bona fide Tender and the return of all documents.

Drawings can be inspected at the office of the Engineer and Surveyor, Municipal Offices, Alexandra-road, Farnborough, Hants, during normal working hours.

Sealed Tenders, endorsed "Concrete Bases for 144 Garages" are to be forwarded in the envelope provided to reach the undersigned not later than first post on MONDAY, 23rd MAY, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

D. STUART JONES,
Clerk of the Council.

Town Hall,
Farnborough,
Hants.
5th April, 1960.

BOROUGH OF ENFIELD.

BRANCH LIBRARY AND RATES COLLECTION OFFICE.

PONDERS END, ENFIELD, MIDDX.

Building Contractors desirous of TENDERING for the ERECTION OF THE NEW BRANCH LIBRARY AND RATES COLLECTION OFFICE, College Court, High-street, Ponders End, Enfield, should apply to the Borough Engineer and Surveyor, Mr. H. Deryck Peake, M.Sc. (Eng.), M.I.C.E., 7 Little Park-gardens, Enfield, by first post TUESDAY, 19th APRIL, 1960. Bills of Quantities and Forms of Tender will be forwarded on or about the 26th APRIL, 1960.

All applications must be accompanied by a deposit of £2 2s., to be returned on receipt of a bona fide tender addressed to the undersigned and/or the return of all documents.

Plans and Conditions of Contract may be inspected at the offices of the Borough Engineer as aforesaid on or after the 27th APRIL, 1960, on Mondays to Fridays between the hours of 9 a.m. and 12.30 p.m.

Tenders must reach the undersigned not later than noon on TUESDAY, the 17th MAY, 1960, and no tender will be received except in a plain envelope which must be sealed and must bear the words "Tender for Branch Library and Rates Collection Office, College Court, High-street, Ponders End, Enfield," but shall not bear any name or mark indicating the sender.

The Council do not bind themselves to accept the lowest or any tender.

Contractors tendering will be required to submit particulars of similar works which have been carried out by them.

CYRIL E. C. R. PLATTEN,
Town Clerk.

Public Offices,
Enfield,
Middx.

CITY OF SALFORD.

FREDERICK-ROAD TRANSPORT DEPOT.

PROPOSED MODIFICATIONS.

FIRM PRICE TENDERS are invited for the ALTERATIONS TO THE ABOVE TRANSPORT DEPOT at Frederick-road, Salford, 6.

The work comprises DEMOLITION OF EXISTING MAINTENANCE PITS, FLOOR, MAIN DIVIDING WALL carrying part of the Depot roof, and the CONSTRUCTION OF NEW MAINTENANCE PITS, FLOORS, SCREEN WALLS, SMALL OFFICE BUILDINGS, involving, in the main, brickwork, concrete, steelwork, together with alterations to ancillary workshops throughout the Depot and the office block.

The work will be phased over a period of 2 years and must be executed with minimum interference to the daily working of the Transport Department.

Conditions of Contract and Drawings may be inspected at, and Bills of Quantities and Form of Firm Price Tender obtained from, the City Engineer and Surveyor's Department, Town Hall, Salford, 3, on payment of a deposit of £5 5s. which will be returned on submission of a bona fide Firm Price Tender not subsequently withdrawn.

Firm Price Tenders on the prescribed form, sealed in the envelope provided and bearing no other mark or identification, must be forwarded to the undersigned so as to be received not later than 10 a.m. on MONDAY, 23rd MAY, 1960.

The Council does not bind itself to accept the lowest or any Firm Price Tender.

R. RIBBLESDALE THORNTON,
Town Clerk.

WEST SUSSEX COUNTY COUNCIL.

Contractors wishing to submit a FIXED-PRICE TENDER for either of the undermentioned schemes, are invited to apply for permission to tender; such applications, stating for which scheme(s) they wish to tender, to be addressed to the County Architect, County Hall, Chichester, to reach him not later than 27th APRIL, 1960.

(1) FIRE STATION AND DIVISIONAL HEADQUARTERS at Worthing. (Job No. 6126.)

(2) STAGE 1 OF NEW SCHOOL at Yapton, nr. Arundel. (Job No. 6200.)

Quantities for (1) will be issued on or about 24th MAY, 1960, and for (2) on or about 7th JULY, 1960.

The County Council does not bind itself to accept the lowest or any tender, and the firm whose tender is accepted must be prepared to enter into a contract in a form to be prepared by me.

T. C. HAYWARD,
Clerk of the County Council.

County Hall,
Chichester.

CITY OF NEW SARUM.

MULTI-PURPOSE CIVIC HALL, CASTLE-STREET, SALISBURY.

TO BUILDING CONTRACTORS.

FIXED PRICE TENDERS.

Contractors desiring to TENDER for this project are invited to submit their names to the Architects, Messrs. Robert Potter & Richard Hare, F/A.R.I.B.A., De Vaux House, Salisbury, Wilts., not later than FRIDAY, 29th APRIL, 1960, accompanied by details of similar works previously undertaken and names of Architects from whom references may be obtained.

The contract comprises the CONSTRUCTION OF A TWO-STOREY REINFORCED CONCRETE FRAME BUILDING approximately 113 ft. x 73 ft. x 40 ft. high to the ridge, including reinforced concrete foundation work, external works and service connections.

From such applications a selected list of tenderers will be made by the Council and those selected will be notified and will be required to make payment of a deposit of £2. Upon receipt of this deposit the Bills of Quantities and Form of Tender will be forwarded and it is anticipated that these will be available on MONDAY, 20th JUNE, 1960. The deposit of £2 will be refunded on receipt of a bona fide Tender or the return of all loaned documents.

The Council do not bind themselves to accept the lowest or any Tender.

GEO. RICHARDSON,
Town Clerk.

The Council House,
Bourne Hill,
Salisbury, Wilts.

COUNTY BOROUGH OF READING.

TO BUILDING CONTRACTORS.

FIRM PRICE TENDERS are invited for the ERECTION OF A BUILDING CONTAINING TWO FLATS AND TWO GARAGES, etc., in Corwen-road, Tilehurst, Reading. Specification and drawings may be obtained from the Borough Architect, Town Hall, Reading, on application to him accompanied by a cheque for two guineas (made payable to the Reading Corporation) which will be refunded on receipt of a bona fide Tender, not subsequently withdrawn. Tenders to Town Clerk, Town Hall, Reading, by NOON, 9th MAY, 1960. No Tender considered unless enclosed in the endorsed envelope provided which shall bear no indication of the sender. The Corporation do not bind themselves to accept the lowest or any Tender.

COUNTY BOROUGH OF GRIMSBY.

CONSTRUCTION OF INDOOR SWIMMING POOL.

The Estates and Baths Committee of the Town Council will shortly be in a position to invite FIXED-PRICE TENDERS for the CONSTRUCTION OF A COVERED SWIMMING POOL on a site in Scartho-road, Grimsby. The work includes bulk excavation, reinforced concrete work, structural steelwork, general building works, together with ancillary site works.

The Consulting Engineers for the mechanical and electrical installations and the structural engineering design are Messrs. Oscar Faber & Partners of London. The Contract includes for Sub-contracts to the General Contractor for structural steelwork, heating, hot water, electrical and filtration, etc., plants.

Experienced Contractors, competent to carry out works of this nature, are invited to submit their names to the undersigned not later than MONDAY, the 25th APRIL, 1960.

Contractors eventually invited to tender will be required to have the necessary financial and material resources, together with the appropriate labour force, to carry out the works expeditiously within the Contract period to be specified.

The Council does not bind itself to accept the lowest or any tender.

J. V. OLDFIELD, M.Inst.C.E., L.R.I.B.A.,
Borough Engineer, Surveyor and Architect.

Municipal Offices,
Town Hall-square,
Grimsby.
April, 1960.

COUNTY BOROUGH OF MIDDLESBROUGH.

PUBLIC CONVENIENCES, ALBERT MEWS.

TENDERS are invited for the ERECTION OF MEN'S AND WOMEN'S CONVENIENCES in the Town Centre in single-storey traditional construction with superior finishes. Bills of Quantities obtainable from the Borough Engineer, deposit two guineas.

Tenders to be received by the Town Clerk on or before 2nd JUNE, 1960

BOROUGH OF SHREWSBURY.

EXTERNAL PAINTING CONTRACTS.

TENDERS are invited for the EXTERNAL PAINTING OF HOUSES in the following groups:

Contract No. 1: 100 HOUSES at Judith Butts Gardens, Part I.

Contract No. 2: 122 HOUSES at Meadows Estate, Parts II and III.

General Conditions of Contract, Specification and Form of Tender may be obtained from A. T. Morris, M.I.C.E., Borough Surveyor, Guildhall, Shrewsbury.

Tenders must be sealed in the envelope provided and delivered without name or mark indicating the sender to the undersigned not later than 10 a.m. on MONDAY, 25th APRIL, 1960.

The Corporation does not bind itself to accept the lowest or any tender.

S. R. H. LOXTON,
Town Clerk.

Guildhall,
Shrewsbury.
March, 1960.

BOROUGH OF STOURBRIDGE.

SHOPS, FLATS AND BUNGALOWS—RUFFORD ESTATE.

TENDERS are invited for the ERECTION OF 2 SHOPS WITH MAISONETTES OVER, 12 FLATS, 32 OLD PEOPLE'S BUNGALOWS AND COMMUNITY CENTRE on the Rufford Estate, Stourbridge.

The drawings may be inspected at the office of, and Bills of Quantities and Documents obtained from, the undersigned after 11th APRIL, 1960, on receipt of a deposit of £3 3s. 0d.

Tenders in plain sealed envelopes endorsed "Housing Tender" to Town Clerk, Council House, Stourbridge, by registered post not later than NOON on MONDAY, 2nd MAY, 1960.

The Council does not bind itself to accept the lowest or any tender. The acceptance of a tender is subject to the approval of the Ministry of Housing and Local Government.

H. W. MORRIS,
B.Sc.(Eng.), A.M.I.C.E.,
Borough Engineer and Surveyor.

Council House,
Stourbridge.
4th April, 1960.

FARNBOROUGH URBAN DISTRICT COUNCIL.

ERECTION OF GARAGES.

TENDERS are invited for the SUPPLY, DELIVERY AND ERECTION, on ready prepared concrete bases, of 144 PRE-FABRICATED GARAGES on various of the Council's Housing Estates as follows:

17 Garages, Beech-road;
20 Garages, Birchett-road;
59 Garages, Blackthorn-crescent;
25 Garages, Churchill-crescent;
23 Garages, Clayton-road/Neville Duke-road.

Firms wishing to tender are to make application to the Council's Engineer and Surveyor, Municipal Offices, Alexandra-road, Farnborough, Hants, for Form of Tender and further details.

Sealed Tenders, endorsed "Supply of Garages," are to be forwarded in the envelope provided to reach the undersigned not later than first post on MONDAY, 23rd MAY, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

D. STUART JONES,
Clerk of the Council.

Town Hall,
Farnborough,
Hants.
5th April, 1960.

BOROUGH OF GOSPORT.

OLD PEOPLE'S HOMES, CHAPEL ROW, GOSPORT.

Documents will be available in the very near future to enable Contractors to TENDER for the above works which comprise a TWO STOREY BUILDING CONTAINING 13 NO. OLD PEOPLE'S FLATLETS, together with a WARDEN'S FLAT and ancillary site works. The approximate size of the building is 80 ft. 0 in. x 34 ft. 0 in.

Applications for the tender documents should be made to the Acting Borough Engineer, The Hall, Haslar-road, Gosport, together with a deposit of £2 2s. 0d., which deposit will be refunded on receipt of a bona fide tender and/or the return of all documents.

Tendering instructions will be issued with the documents.

The Corporation do not bind themselves to accept the lowest or any tender.

E. ADDENBROOKE,
Town Clerk.

Town Hall,
Gosport.
2nd April, 1960.

EAST RIDING OF YORKSHIRE COUNTY COUNCIL.

TENDERS are invited for the ERECTION OF A THREE-CLASSROOM INSTALMENT (approximately 4,800 f.s.) OF A NEW COUNTY PRIMARY SCHOOL at Melbourne near York.

Application for the Bills of Quantities, which it is anticipated will be available on the 19th APRIL, should be made to the County Architect, County Hall, Beverley, and should be accompanied by a deposit of £2. Cheques to be made payable to the County Treasurer.

No tender will be considered unless received by the undersigned not later than 4 p.m. on TUESDAY, 10th MAY, 1960, in a plain sealed envelope supplied by the Council, endorsed "Tender: Erection of additional classrooms at Melbourne," and which shall not bear any name or mark indicating the sender.

THOMAS STEPHENSON,
Clerk of the Council.

COUNTY BOROUGH OF WALSALL.

ROSS-ROAD, COALPOOL ESTATE.

TENDER FOR CLINIC.

TENDERS are invited for the ERECTION OF A CLINIC on the above Estate.

Bills of Quantities and Form of Tender may be obtained from the undersigned on payment of THREE GUINEAS which will be refunded after the receipt of a bona fide tender.

Drawings may be inspected and any further information obtained from the undersigned.

Tenders must be sent in a sealed envelope addressed to the Town Clerk and bearing the words "Tender for Coalpool Estate—Clinic," so as to be received not later than 12 noon on TUESDAY, 3rd MAY, 1960.

Any tender received after the time stated or otherwise than in an envelope endorsed as required may be rejected.

An envelope suitably addressed and endorsed will be supplied with the form of tender or on request and it is desired that this envelope be used.

The Council do not bind themselves to accept the lowest or any tender.

JOHN H. RENDLE,
Chartered Architect.

Lichfield Chambers,
1 Leicester-street,
Walsall.

BOROUGH OF HARROW.

RENEWAL OF LEAD WATER SERVICES, ETC.

TENDERS are invited for carrying out the RENEWAL OF EXISTING LEAD RISING MAINS AND COLD WATER SERVICES, including stop valves and all ancillary works thereto to dwellings on the Corporation's Berridge, Wolverton-road (Stanmore) and Woodlands-drive Estates. The work will be let in three separate contracts.

Conditions of Contract may be inspected at the office of, and a copy of the Form of Tender and Specification obtained on application to, the Borough Engineer and Surveyor, Council Offices, "Cottesmore," 48 Uxbridge-road, Stanmore, Middlesex, upon payment of Two Pounds by crossed cheque, made payable to the Harrow Corporation, and returnable where a bona fide tender reaches me within the prescribed time.

Tenders, on the prescribed form, are to be enclosed in plain sealed envelopes, bearing no indication or mark of the sender and carrying the label provided, suitably endorsed, and delivered to my office not later than 10 a.m. on TUESDAY, 17th MAY, 1960.

The Corporation does not bind itself to accept the lowest, or any, tender.

D. H. PRITCHARD,
Town Clerk.

Town Clerk's Office,
92 Uxbridge-road,
Harrow,
Middlesex.

WELTON RURAL DISTRICT COUNCIL.

TENDERS FOR HOUSING AT LANGWORTH (ON TWO SITES).

The above Council invites Contractors who are desirous of submitting TENDERS for 6 DWELLINGS, comprising 2 HOUSES and 2 BUNGALOWS (Chapel Site) and 2 BUNGALOWS (Barlings-lane) at Langworth on two separate sites and Contractors may tender for one or both, to send in their names to the Architects, Messrs. Wm. Saunders & Partners, 24 Castle-gate, Newark, Notts, or 57 Upgate, Louth, Lincs., from whom copies of the Specifications and Bills of Quantities and Conditions may be obtained on payment of £3 3s., which will be returned on receipt of a bona fide tender.

The Council does not bind itself to accept the lowest or any tender received and acceptance is subject to the approval of the Ministry of Housing and Local Government.

Sealed and endorsed tenders, on forms supplied, must reach the undersigned not later than 12 noon on THURSDAY, 5th MAY, 1960.

L. H. KING,
Clerk of the Council.

31 Clasketgate,
Lincoln.

COUNTY COUNCIL OF ESSEX.

EXTERNAL PAINTING TO HOUSES AND BUILDINGS AT BOXTED, NEAR COLCHESTER.

The Smallholdings Committee invite FIRM PRICE TENDERS from Building Contractors with suitable organisation for EXTERNAL PAINTING and GENERAL REPAIRS to 20 Smallholders' houses and buildings at Straight-road and Horkesley-road, Boxted, near Colchester.

Specification and Form of Tender may be obtained from the County Land Agent and Valuer, 69 Duke-street, Chelmsford.

No Tender will be considered unless contained in the envelope provided and delivered to the undersigned not later than 12 NOON on MONDAY, 9th MAY, 1960.

The County Council does not bind itself to accept the lowest or any Tender.

CHRISTIAN BERRIDGE,
Clerk of the County Council.

County Hall,
Chelmsford.

UTTOXETER URBAN DISTRICT COUNCIL.

REPAIR OF FIRE DAMAGE AT THE OLD BREWERY, HIGH-STREET, UTTOXETER.

TENDERS are invited from suitable Contractors for the REPAIR OF FIRE DAMAGE to an old Maltings mainly involving the supply and fixing of 608 sq. yds. of precast reinforced concrete flooring beams.

Conditions of Contract, Specification and Forms of Tender may be obtained on application to the Surveyor to the Council on deposit of the sum of £2 (Two Pounds) which will be returned on receipt of a bona fide Tender not subsequently withdrawn and the return of all documents supplied.

Tenders in plain sealed envelopes endorsed "Tender Fire Damage" are to be delivered to the undersigned not later than 12 NOON on 3rd MAY, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

JOHN H. KENNY,
Clerk to the Council.

Council Offices,
Old Bank House,
High Street,
Uttoxeter,
Staffs.

CITY OF PORTSMOUTH.

TENDERS, based on Bill of Quantities, are invited for the ERECTION OF NEW BRANCH COLLEGE OF TECHNOLOGY, Highbury.

Contractors desirous of tendering should apply for documents to the City Architect, 1 Western-parade, Portsmouth, not later than 25th APRIL, 1960, enclosing a deposit of £1, which will be refunded on receipt of a bona fide Tender or the return of all the documents within three days.

The Council do not bind themselves to accept the lowest or any Tender. It is a condition of tendering that the Contractor shall at the date of his Tender, have in his employment not less than one indentured apprentice to every eight craftsmen who were employed by him on the previous 1st January.

V. BLANCHARD,
Town Clerk.

METROPOLITAN BOROUGH OF WANDSWORTH.

PUBLIC CONVENIENCE.

Contractors wishing to TENDER for ERECTION OF A NEW PUBLIC CONVENIENCE at Atkins-road Poyndersroad should submit names to me by WEDNESDAY, 6th MAY, 1960, giving details of experience, plant and technical and supervisory staff available together with names of two technical and two financial referees. Bills of quantities will be issued to selected contractors in due course.

Drawings may be examined at office of Borough Engineer and Architect, Municipal Buildings, S.W.18.

J. NOEL MARTIN,
Town Clerk.

Municipal Buildings,
Wandsworth, S.W.18.

BOROUGH OF WEYMOUTH AND MELCOMBE REGIS.

The Corporation propose to invite FIRM PRICE TENDERS for the ERECTION OF PUBLIC CONVENIENCES at Lodmoor Car Park and are preparing a list of selected contractors.

The Form of Contract will be the R.I.B.A. Standard Form of Contract with Quantities but with Clause 25a (Fluctuations) deleted.

Contractors desirous of being included in this list are invited to apply to the undersigned not later than 12 NOON, FRIDAY, 22nd APRIL, 1960.

E. J. JONES,
Town Clerk.

Town Clerk's Office,
Weymouth.
April, 1960.

COUNTY BOROUGH OF SOUTHAMPTON invites TENDERS

—ERECTION OF CENTRAL HEALTH CLINIC at East Park-terrace, Southampton (Phase I—Three-storey Block).

Forms and particulars including Bills of Quantities from Borough Architect on written application by 23rd APRIL, 1960.

R.I.B.A. Contract plus Supplementary Conditions available for inspection.

Tender to Town Clerk, Civic Centre, Southampton, by 10 a.m. 30th MAY, 1960.

CITY OF PLYMOUTH.

TENDERS are invited from Building Contractors for the ERECTION OF 16 ONE BEDROOM, TYPE E FLATS at Pembroke-street, Devonport.

Applications, accompanied by a deposit of £3 3s. 0d. made payable to the Plymouth Corporation, to be made to the City Architect, Seymour-road, Plymouth, from whom Bills of Quantities and Forms of Tender may be obtained.

No application received after the 18th APRIL, 1960, will be considered.

Deposits will be refunded upon receipt of bona fide tenders not subsequently withdrawn.

BOROUGH OF EALING.

ERECTION OF 16 FLATS—LYNCROFT-GARDENS, W.13.

Forms of Tender and Specification, etc., can be obtained from the Borough Surveyor on payment of £5.

Tenders to be delivered to the Town Clerk, Town Hall, Ealing, W.5, not later than 12 NOON, 23th MAY, 1960.

E. J. COPE-BROWN,
Town Clerk.

NEWCASTLE REGIONAL HOSPITAL BOARD.

CHERRY KNOWLE HOSPITAL, RYHOPE, NEAR SUNDERLAND.

The Board proposes to carry out STRUCTURAL ALTERATIONS AND EXTENSIONS on the ground and first floors (approximate floor area 3,000 square feet) to upgrade the sanitary annexes for four Ward Units at the above hospital.

Tender documents will be ready for issue to Contractors during May, 1960, and it is expected that it will be possible for the building operations to commence in June, 1960.

The project has been planned by and will be carried out under the direction of Messrs. George T. Brown and Son, Architects, of 14 Grange-terrace, Stockton-road, Sunderland.

Contractors wishing to tender for this work are asked to submit their names to the Secretary of the Board, Benfield-road, Newcastle-upon-Tyne, 6, not later than 21st APRIL, 1960. A limited number of Contractors may be selected and asked to tender, but the lowest or any tender will not necessarily be accepted.

CITY AND COUNTY OF BRISTOL.

TO BUILDING CONTRACTORS.

Transport and Cleansing Committee invite TENDERS for CONSTRUCTION OF PUBLIC CONVENIENCE at Gloucester-road, Bristol, together with limited site works of paving and screen wall.

Contractors willing to submit FIXED PRICE TENDER apply to City Architect, Council House, Bristol, 1, by 22nd APRIL. Bills of Quantities issued shortly after.

BOROUGH OF DUNSTABLE.

FIXED PRICE TENDERS invited for the INSTALLATION OF HOT WATER SYSTEMS, OTHER IMPROVEMENTS AND THE REDECORATION OF 18 HOUSES, West-street, Dunstable.

Tender documents obtainable from Housing Estates Manager, Priory House, Dunstable, on payment of £2 2s. 0d. (refundable on receipt of bona fide tender not later withdrawn). Tenders, in envelopes provided, to reach Town Clerk, Municipal Offices, Dunstable, by SATURDAY, 23rd APRIL, 1960.

CITY OF PLYMOUTH.

TENDERS are invited from Building Contractors for:

(a) THE ERECTION OF 8 THREE-BEDROOM FLATS at Adelaide-place, Plymouth.

(b) THE PROVISION OF THREE NEW CLASSROOMS at First Floor level, Devenport High School for Girls, Plymouth.

Applications, accompanied by a deposit of Three Guineas for each scheme made payable to the City Architect, Seymour-road, Plymouth, from whom Bills of Quantities and Forms of Tender may be obtained.

No application received after the 23rd APRIL, 1960, will be considered.

Deposits will be refunded on receipt of bona fide tenders not subsequently withdrawn.

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TO CONSTANT ACCURACY IN PROPORTIONING AND LOWEST CONCRETE PRODUCTION COSTS

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A complete range . . . 3½T, 5E, 7E, 7S, 10S, 12S and 14S with choice of steel wheels or pneumatics. Folding Hydraulic Weigher and Drag Loader Shovel available for 7S, 10S, 12S and 14S models. Illustrated literature and prices on request

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BK 579

COUNTY COUNCIL OF ESSEX.

"NEWPORT HOUSE," GIRLS' REMAND HOME, GREAT BADDOW, CHELMSFORD.

ALTERATIONS AND EXTENSIONS.

Contractors wishing to submit a FIRM PRICE TENDER for the above should forward their names, from which a panel will be chosen and provided with Bills of Quantities.

The work consists of alterations and extensions in traditional construction, estimated cost £6,750.

Applications to reach the undersigned not later than 23rd APRIL, 1960.

H. CONOLLY, C.B.E., F.R.I.B.A., County Architect.

County Hall, Chelmsford.

WEST SUSSEX COUNTY COUNCIL.

Contractors wishing to submit a FIXED PRICE TENDER for the undermentioned project, are invited to apply for permission to tender; such applications to be addressed to the County Architect, County Hall, Chichester, to reach him not later than 26th APRIL, 1960.

ADAPTATIONS AND ADDITIONS to Old St. Christopher's Children's Home at Rustington, nr. Littlehampton (Job No. 6259).

Quantities will be issued on or about 1st JUNE, 1960.

The County Council does not bind itself to accept the lowest or any tender, and the firm whose tender is accepted must be prepared to enter into a contract in a form to be prepared by me.

T. C. HAYWARD, Clerk of the County Council.

County Hall, Chichester.

WIGSTON URBAN DISTRICT COUNCIL.

NEWGATE END DEPOT IMPROVEMENT SCHEME.

Builders are invited to TENDER for the carrying out of EXTENSIONS, ADDITIONS AND ALTERATIONS, including a garage of 4,800 sq. ft. area, at the Council's Newgate End Depot, Wigston.

Particulars, Specifications, Bills of Quantities and Form of Tender may be obtained from, and Drawings inspected at, the office of the Engineer and Surveyor at the address below on payment of a deposit of £5 5s., which is returnable on receipt of a bona fide tender. Cheques to be made payable to Wigston Urban District Council.

Tenders in the plain envelope supplied are to reach the undersigned not later than 10 a.m. on 2nd MAY, 1960.

W. H. GUNNING, Clerk of the Council.

Council Offices, Wigston, Leicester.

COUNTY BOROUGH OF BARNSLEY EDUCATION COMMITTEE.

ERECTION OF A SECONDARY MODERN SCHOOL AT ST. HELEN'S ESTATE, BARNSLEY.

The Education Committee invite TENDERS to be received not later than 12 noon on the 25th APRIL, 1960, for the ERECTION OF A SECONDARY MODERN SCHOOL at St. Helen's Estate, Barnsley, to accommodate 600 children. The building will be constructed of traditional materials on special reinforced concrete foundations.

Contractors wishing to tender for the above work will be supplied with Bills of Quantities on application to the Architects, Messrs. Dyson, Cawthorne and Coles, of 25 Regent-street, Barnsley.

H. A. REDBURN, Director of Education.

Education Department, Town Hall, Barnsley. April, 1960.

COUNTY OF CORNWALL.

NOTICE is hereby given of the intention to let separately the Sub-Contracts for: (a) METAL WINDOWS; and (b) ROLLER LEAF SLIDING SHUTTER DOORS in connection with the proposed erection of a new Fire Station at Camborne.

Applications are invited for permission to submit FIXED-PRICE TENDERS for these Sub-Contracts and should be made to the County Architect, County Hall, Truro, not later than TUESDAY, 26th APRIL, 1960, from which a selected number of firms will be invited to tender. The closing date for receipt of tenders will be notified when the documents are despatched.

The lowest or any tender will not necessarily be accepted nor will the County Council pay to Contractors any fees or expenses incurred in the preparation of a tender.

E. T. VERGER, Clerk of the County Council.

County Hall, Truro. 7th April, 1960.

DURHAM COUNTY COUNCIL.

TENDERS invited:

Shildon County and Modern Schools—RENEWAL OF FLOORS.

Ferryhill Fire Station — ALTERATIONS.

Application for further details to County Architect, South-street, Durham, not later than 27th APRIL, 1960.

J. K. HOPE, Clerk of the County Council.

Shire Hall, Durham.

CITY OF BIRMINGHAM.

TO BUILDING CONTRACTORS.

CONTRACT 730 (A-C), 20 DWELLINGS, HANDSWORTH AND KINGSTANDING AREAS.

CONTRACT 730 (D-H), 25 DWELLINGS, SHARD END AND SHELDON AREAS.

CONTRACT 730 (O-R), 50 DWELLINGS, BRANDWOOD AND KINGS NORTON AREAS.

CONTRACT 730 (S-U), 16 DWELLINGS, HARBORNE AND NORTHFIELD AREAS.

The House Building Committee invite FIRM-PRICE TENDERS for the ERECTION of the above — comprising bungalows and two-storey flats—on various small sites in the areas shown.

Bills of Quantities and Forms of Tender will be forwarded on payment of £2 2s. for each contract at the office of A. G. Sheppard Fidler, City Architect, Civic Centre, Birmingham, 1, to whom all cheques should be made payable. Applications should be made by 20th APRIL, 1960. Conditions of Contract (which include the usual Fair Wages and Conditions of Labour Clause) may be seen at the City Architect's Office during normal working hours.

The deposits will be returned on receipt of bona fide tenders or on notification of inability to tender, together with the return of the documents not later than three days before the date for receipt of tenders.

Tenders, enclosed in the envelopes provided for the purpose, must be sealed and delivered to the Town Clerk's Office (Room No. B.31), Council House, Birmingham, 1, NOT LATER THAN 12 noon on FRIDAY, the 20th MAY, 1960. Tenders received after that time will be rejected.

The Committee do not bind themselves to accept the lowest or any tender.

T. H. PARKINSON, Town Clerk.

The Council House, Birmingham, 1.

CITY OF BIRMINGHAM.

TO BUILDING CONTRACTORS.

CONTRACT 715.

14 ONE- AND TWO-STOREY DWELLINGS, WOODCOCK-LANE, WOODCOCK HILL ESTATE, NORTHFIELD.

The House Building Committee invite FIRM-PRICE TENDERS for the ERECTION of the above.

Bills of Quantities and Form of Tender will be forwarded on payment of £2 2s. at the office of A. G. Sheppard Fidler, City Architect, Civic Centre, Birmingham, 1, to whom all cheques should be made payable. Applications should be made by 20th APRIL, 1960. Conditions of Contract (which include the usual Fair Wages and Conditions of Labour Clause) may be seen at the City Architect's office during normal working hours.

The deposit will be returned on receipt of a bona fide tender, or on notification of inability to tender, together with the return of the documents not later than three days before the date for receipt of tenders.

Tenders, enclosed in the envelope provided for the purpose, must be sealed and delivered to the Town Clerk's Office (Room No. B.31), Council House, Birmingham, 1, NOT LATER THAN 12 noon on FRIDAY, the 20th MAY, 1960. Tenders received after that time will be rejected.

The Committee do not bind themselves to accept the lowest or any tender.

T. H. PARKINSON, Town Clerk.

The Council House, Birmingham, 1.

CHISLEHURST AND SIDCUP URBAN DISTRICT COUNCIL.

TENDERS will be invited during 1960/61 for EXTERNAL PAINTING TO 500 PROPERTIES in 6 groups, and INTERNAL DECORATIONS TO 160 PROPERTIES in 5 groups. Contractors wishing to tender for any groups must apply to Housing Manager before 30th APRIL, 1960.

T. W. FAGG, Clerk of the Council.

Council Offices, Sidcup-place, Sidcup.

LEEDS REGIONAL HOSPITAL BOARD.

TO BUILDING CONTRACTORS.

The Board expects to be in a position to invite FIXED PRICE TENDERS in the near future for STAGE II DEVELOPMENT at HULL MATERNITY HOSPITAL, Hedon-road, Hull, comprising, in single-storey building, a WARD UNIT, a RADIOGRAPHY DEPARTMENT and a BOILER HOUSE.

Applications for Forms of Tender and Bills of Quantities accompanied by a deposit of £2 2s. (which will be refunded on receipt of a bona fide Tender and other contract documents) must be made to the Architect to the Board at the undermentioned address not later than 12 NOON on THURSDAY, 21st APRIL, 1960. Cheques should be made payable to the "Leeds Regional Hospital Board" and crossed.

A copy of the drawings, Conditions of Tender and Conditions of Contract may be inspected at the office of the Architect to the Board, or at the office of the Superintendent Engineer, 33 Albion-street, Hull.

Four weeks will be allowed for tendering.

The Board does not bind itself to accept the lowest or any Tender.

WM. A. SHEE, Secretary to the Board.

Park-parade, Harrogate, Yorks.

BOROUGH OF TOTTENHAM.

127 PARK-LANE.

18 FLATS IN 4-STOREY BLOCKS.

Builders wishing to TENDER are requested to notify the Borough Engineer, Town Hall, Tottenham, N.15, not later than 3rd MAY, 1960, quoting B, together with £2 2s. deposit, refundable upon the submission of a bona fide tender. Plans may be seen at the Town Hall, N.15.

As soon as possible after the receipt of the deposit, copies of the Bills of Quantities, Form of Tender and all necessary documents will be forwarded to the applicants, stating the closing date for the receipt of tenders.

The Council do not bind themselves to accept the lowest or any tender.

M. LINDSAY TAYLOR, Town Clerk.

Town Hall, Tottenham, N.15.

BOROUGH OF MAIDSTONE.

PROPOSED HOUSING CONTRACTS.

SHEPWAY FARM ESTATE AND PARK WOOD ESTATE.

Scheme 56A—5 BUNGALOWS, Norfolk-road, Shepway.

Scheme 57A—GROUPED RESIDENTIAL ACCOMMODATION for Old Persons (50 units), Shepway—Cambridge-crescent.

Scheme 58A—4 FLATS, Hampshire-drive, Shepway.

Scheme PW9—24 FLATS, Bell-road, Park Wood.

TENDERS are invited from bona fide building contractors for the above schemes.

Contractors desirous of submitting Tenders for any one or all of these schemes should apply to the Borough Engineer, Palace-avenue, Maidstone, by not later than FRIDAY, 22nd APRIL, 1960.

The tender documents will be circulated during May and early June. It should be clearly stated which schemes Contractors wish to tender for.

T. SCHOLES, Town Clerk.

13 Tonbridge-road, Maidstone. 7th April, 1960.

BOROUGH OF SLOUGH.

TOWN HALL—ADDITION TO EXISTING OFFICES.

TENDERS are invited for the ERECTION OF A TWO-STOREY EXTENSION TO THE EXISTING TOWN HALL to accommodate a private telephone exchange and store rooms. The extension will be approximately 28 feet long by 26 feet wide and is to match the existing building.

Contractors wishing to tender should apply to the Borough Engineer, Town Hall, Slough, not later than 29th APRIL, 1960, for Forms of Tender and Bills of Quantities. Applications must be accompanied by a deposit of 2 gns., which will be refunded on receipt of a bona fide Tender, and the return of the contract documents.

Tender documents, together with the closing date for the receipt of Tenders, will be forwarded to applicants during May, 1960.

The Council do not bind themselves to accept the lowest or any Tender.

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THAT THEY HAVE CONCLUDED ARRANGEMENTS TO ACT AS AGENTS IN NORFOLK FOR **E. R. COLE LTD.,** LONDON AND WILL HOLD STOCKS OF PLANT INCLUDING VIBRATING ROLLERS, RAMMERS, COBRA RIPPERS, CONCRETE MIXERS, PUMPS and of KANGO HAMMERS, SAWS, DRILLS, SANDERS & OTHER ELECTRIC TOOLS. ENQUIRIES FOR HIRE OR SALE TO

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A. E. WHITEHOUSE LTD.

Dereham Road, Costessey, Norwich. Costessey 2034

PUBLIC APPOINTMENTS

COUNTY BOROUGH OF BOLTON.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited from qualified Architects for the post of PRINCIPAL ASSISTANT ARCHITECT, Grade A.P.T. IV (£1,065-£1,220).

The successful candidate will be expected to lead a group on varied work, and the commencing salary will be within the grade according to experience.

The appointment is superannuable and is subject to medical examination. Applications, giving full details of age, qualifications and experience, and the names of two referees, should be received by me by 10 a.m. MONDAY, the 25th APRIL.

PHILIP S. RENNISON,
Town Clerk.

Town Hall,
Bolton.

BOROUGH OF SOLIHULL.

APPOINTMENT OF LANDSCAPE ARCHITECT.

Applications are invited from members of the Institute of Landscape Architects who have had considerable experience for appointment as LANDSCAPE ARCHITECT in the Borough Engineer and Surveyor's Department at a salary in accordance with A.P.T. Grade IV (£1,065 x £55 (1) x £50 (2) x £1,220).

The rapid growth of the Borough has necessitated the development of public open spaces and playing fields, as well as the landscaping of housing estates, etc.

Half the reasonable cost of removal expenses will be paid and where applicable housing accommodation made available as soon as possible.

The appointment is subject to the provisions of the Local Government Superannuation Acts; the National Scheme of Conditions of Service, a medical examination and to one month's notice on either side.

Applications, giving full particulars as to present and past experience, together with the names and addresses of two referees, should be submitted to the Borough Surveyor, 90 Station-road, Solihull, not later than 26th APRIL, 1960.

W. MAURICE MELL,
Town Clerk.

The Council House,
Solihull.
30th March, 1960.

COUNTY BOROUGH OF EAST HAM.

CLERK OF WORKS (GENERAL BUILDING).

HOUSING DEPARTMENT.

Applications are invited for the above appointment. Salary in acordance with Grade A.P.T. I (£610 to £765 per annum) plus London Weighting.

Further particulars and form of application (returnable by 27th APRIL, 1960) from the Town Clerk, Town Hall, East Ham, E.6.

MINISTRY OF WORKS
requires

TECHNICAL ASSISTANTS

FOR EMPLOYMENT IN LONDON

The work consists of giving technical assistance to Architects and Surveyors.

QUALIFICATIONS

Applicants should be at least 26 years of age and possess the Ordinary National Certificate in Building, or the City and Guilds 3rd Year Certificate in Building, or the Licentiate Diploma of the Institute of Builders, or an equivalent qualification. They should also have had at least five years' technical experience with an Architect, Building Surveyor, or a Building Contractor.

CONDITIONS

Salary range £720—£900.

Commencing salary dependent on age, qualifications and experience.

5-day week. 3½ weeks' annual leave initially. Prospects of promotion and permanency. Permanent posts are pensionable and the pension scheme is non-contributory.

Apply stating age, qualifications and experience to **Chief Maintenance Surveyor (Recruitment), Ministry of Works (C), Room 538, Stanley House, Marsham Street, London, S.W.1.**

WEDNESFIELD URBAN DISTRICT COUNCIL.

ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the position of CHIEF ASSISTANT ARCHITECT at a salary in accordance with A.P.T. Grade IV (£1,065 to £1,220).

Candidates must be qualified and have had considerable experience in the appointment for which they make application.

The district is developing rapidly and offers exceptional experience.

The National Joint Council Conditions of Service will apply and the successful candidate will be required to contribute to a Superannuation Scheme and also undergo a medical examination.

Housing accommodation will be provided, if necessary, and reasonable removal expenses will be paid.

Applications stating age, qualifications, experience, with the names of two referees must be received by the undersigned by not later than 25th APRIL, 1960.

J. HENWOOD JONES,
Clerk of the Council.

Council Offices,
Alfred Squire-road,
Wednesfield,
Staffordshire.

METROPOLITAN BOROUGH OF BATTERSEA.

Applications are invited for the following permanent appointments—

(i) ASSISTANT ARCHITECT, A.P.T. Grade III £880-£1,065 per annum.

(ii) ARCHITECTURAL ASSISTANT, A.P.T. Grade I, £610-£765 per annum.

London Weighting £10-£30 per annum according to age, also payable.

For appointment (i) applicants should be registered architects or have passed the final R.I.B.A. Examination and have had several years' thorough office experience. Previous Local Government experience is not essential. The commencing salary will be according to qualifications and experience.

Further particulars and application forms obtainable from the Borough Engineer and Surveyor, Town Hall, S.W.11. Closing date 25th APRIL.

AIR MINISTRY

Require CLERKS OF WORKS (BUILDING) at R.A.F. and Ministry of Aviation stations for supervision of construction and maintenance work. Candidates must hold O.N.C. (Building), *or* Intermediate C. and G. Certificate in Craft, *or* Associate Membership of Institute of Clerks of Works *or* equivalent qualification. They must also have served apprenticeship as craftsmen with three years' experience as foreman of trade and have experience as general foreman or clerk of works on big contracts. Three years' full-time or five years' part-time training in a building school or three years' experience in a building office in estimating, costing and management will be accepted in lieu of apprenticeship. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 18 days' paid leave a year initially. Overseas tours for which special allowances granted.

Salary ranges from £680 (at age 26) to £850. Commencing salary dependent upon age, qualifications and experience. Applicants, who must be natural born British subjects and not over age 45 years, should write stating age, qualifications and experience to Manager (PE. 1048), Ministry of Labour, Professional and Executive Register, Atlantic House, Farringdon-street, London, E.C.4. No original testimonials should be sent. Candidates selected will normally be interviewed in London and certain expenses reimbursed. Only candidates selected for interview will be advised.

BUILDING SURVEYORS.

Architect's Department, L.C.C. has vacancies in Building Regulation Division and District Surveyor's Service for work in connection with applications under London Building Acts and by-laws. District Surveyor's offices are located in Metropolitan Boroughs and work involves negotiations with developers and supervision of works in progress.

Up to £1,135 (under review) commencing according to qualifications and experience. Application form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/B/494/4C), County Hall, S.E.1.

CORPORATION OF GLASGOW.

ARCHITECTURAL AND PLANNING DEPARTMENT.

ASSISTANT ARCHITECTS.
ASSISTANT QUANTITY SURVEYORS.

Vacancies exist for a number of qualified ASSISTANTS as above. Salary scale £795-£1,240 with placing according to experience.

Applications should be addressed to the City Architect and Planning Officer, 20 Trongate, Glasgow, C.1. Those who have submitted applications during the past 12 months should not reply to this advertisement.

A. G. JURY,
City Architect and Planning Officer.

CITY OF LEICESTER.

CITY ARCHITECT'S DEPARTMENT.

ARCHITECTS interested in modular co-ordination and prefabricated systems of building are invited to apply for the post of ASSISTANT ARCHITECT, Grade A.P.T. IV (£1,065-£1,220).

The post will be concerned with research and development of C.L.A.S.P. building and will involve work in co-operation with other local authorities.

Previous local government experience not essential. Housing accommodation at an economic rent will be provided if necessary. National Conditions of Service apply.

Applications with the names of two referees should be sent to the undersigned not later than MONDAY, 25th APRIL, 1960.

J. H. LLOYD OWEN,
City Architect.

10, Loseby-lane,
Leicester.

EAST LOTHIAN COUNTY COUNCIL

QUANTITY SURVEYING ASSISTANT.

Applications are invited for an appointment in the Property and Works Department. Salary scale £700 to £760 per annum with appropriate placing. Applicants should be at least of Intermediate Standard or equivalent. Superannuation. Person appointed may reside in Edinburgh if desired. Housing accommodation may be made available if required. Applications, stating age and experience, with names and addresses of two referees to the undersigned by 26th APRIL, 1960.

THOS. GIBB,
County Clerk.

County Buildings,
Haddington.

AYCLIFFE DEVELOPMENT CORPORATION.

APPOINTMENTS OF CLERKS OF WORKS (BUILDINGS).

Applications are invited for two posts for the supervision of building contracts. Salary within Grade A.P.T. I of the Whitley Council for New Towns Staff scale of salaries (£610 p.a. to £765 p.a.).

Appointments subject to N.J.C. conditions, superannuation, medical examination and to one month's notice, in writing, on either side.

Housing accommodation, if required.

Applications stating age, qualifications and experience, together with the names of two referees to arrive not later than WEDNESDAY, the 20th APRIL, 1960.

A. V. WILLIAMS,
General Manager.

Churchill House,
Newton Aycliffe,
Nr. Darlington.

BUCKINGHAMSHIRE COUNTY COUNCIL.

APPOINTMENT OF DEPUTY COUNTY ARCHITECT.

Applications are invited from Fellows or Associates of the Royal Institute of British Architects for the appointment of DEPUTY COUNTY ARCHITECT, at a salary of £2,225 per annum, rising by three annual increments of £90 to £2,495 per annum.

The appointment is superannuable and subject to medical examination.

Further particulars and forms of application may be obtained from the undersigned, to whom applications must be delivered by TUESDAY, 10th MAY, 1960.

R. E. MILLARD,
Clerk of the County Council.

County Hall,
Aylesbury.
April, 1960.

BOROUGH OF KING'S LYNN.

HOUSING ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR. Grade A.P.T. I (£610-£765 per annum).

Candidates, who should have passed or be studying for the appropriate intermediate examination, will be required to assist in the preparation of Bills of Quantities, Valuations and measurement of works in progress and settlement of Final Accounts.

Consideration will be given to the provision of housing accommodation.

The appointment is superannuable and subject to the National Scheme of Conditions of Service, and to Medical Examination.

Applications, giving age and full particulars of experience and previous appointments, and naming two referees, should be addressed to G. Holmes, A.R.I.B.A., Housing Architect, Clifton House, Queen-street, King's Lynn, not later than THURSDAY, 28th APRIL, 1960.

Canvassing disqualifies.

E. W. GOCHER,
Town Clerk.

Town Hall,
King's Lynn,
Norfolk.

NORTH WESTERN GAS BOARD.

MANCHESTER GROUP.

HEATING ENGINEER.

Applications are invited for the pensionable position of HEATING ENGINEER with the Manchester Group of the North Western Gas Board. The successful applicant will be mainly concerned with developing and advising on all aspects of central and other forms of whole house heating including small bore systems.

Candidates should be experienced in this kind of work and preference will be given to men who have qualified by examination. The commencing salary will be commensurate with qualifications and experience.

Applications (quoting "vacancy No. 130") stating age, experience, education, qualifications and particulars of present appointment and giving the names of two referees, should reach the General Manager, Manchester Group, North Western Gas Board, Town Hall, Manchester, 2, within 14 days.

DRAUGHTSMEN Required

by Royal Arsenal Estate, WAR OFFICE, Woolwich, S.E.18, with experience in either (a) building construction in brick, concrete or steel; or (b) installation of plant and associated services. Candidates must have had appropriate practical experience and possess O.N.C. or equivalent qualifications. Salary £570 (age 21) to £783 (age 28), rising to £900. 5-day week of 42 hours (including meal breaks). 18 days' annual leave plus public holidays. Payment for overtime and sick leave. Applications, giving details of training and experience, to The Secretary, Royal Arsenal Estate, Woolwich, S.E.18, or to any Employment Exchange quoting Westminster 1127.

BOROUGH OF LEYTON.

Municipal Borough in the County of Essex. Population approximately 100,000.)

BOROUGH ENGINEER'S DEPARTMENT.

Applications invited for appointments of ASSISTANT ARCHITECTS at salaries within the scale of £785 per annum rising to £1,070 per annum (plus London Weighting) in accordance with the provisions of the National Scheme of Conditions of Service for Local Authority Staffs (Special Classes).

Housing accommodation will be made available to successful applicants if required.

Five-day week is operated.

Apply by letter to Borough Engineer, Town Hall, Leyton, E.10 giving names of two referees) not later than FRIDAY, 22nd APRIL, 1960.

D. J. OSBORNE,
Town Clerk.

Town Hall,
Leyton, E.10.

STRUCTURAL ENGINEERS.

ENGINEERS Required in Architect's Department, L.C.C., up to £1,135 (under review)

(a) STRUCTURAL ENGINEERING DIVISION.—Extensive programme includes multi-storey flats, schools, offices, warehouses and other buildings.

(b) STRUCTURAL ENGINEERING DIVISION.—To deal with applications in respect of special structures under Part IV of London Building Act (A) Act, 1939, and constructional by-laws. Interesting work in involving consideration of unconventional forms of construction.

(c) DISTRICT SURVEYOR'S SERVICE.—Work mainly outside involving negotiations with Architects, Engineers and Surveyors and supervision of works in progress.

Good prospects in all these aspects of the Council's work. Application form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council (FK/B/495/4C), County Hall, S.E.1.

GLAMORGAN COUNTY COUNCIL

Require a qualified and experienced ASSISTANT QUANTITY SURVEYOR (£1,065-£1,220) in the Architect's Department. The commencing salary may be above the minimum of the grade. Applications giving details of age, qualifications and experience together with the names of two referees to be received by the County Architect, County Hall, Cardiff, not later than MONDAY, 2nd MAY, 1960.

RICHARD JOHN,
Clerk of the County Council.

COUNTY BOROUGH OF EAST HAM.

PRINCIPAL ASSISTANT PLANNING OFFICER.

Grade A.P.T. IV, £1,065-£1,220.

Vacancy in the Borough Engineer's Department. London Weighting paid in addition. Salary above minimum paid according to qualifications and experience.

Subsistence allowance may be paid over a reasonable period to person appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Details and application form from the Town Clerk, E.6.

Closing date 29th APRIL, 1960.

CITY OF WORCESTER.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for this appointment within Salary Scale A.P.T. I (£610-£765 per annum). The appointment is superannuable and subject to a medical examination.

Housing accommodation will be offered if necessary, and the Corporation are prepared to make a contribution towards removal expenses.

Casual User's Car Allowance will be applicable.

Applications stating age, present and previous appointments and experience are to be sent to the City Engineer and Surveyor, 22 Bridge-street, Worcester, by WEDNESDAY, 20th APRIL, 1960.

BERTRAM WEBSTER,
Town Clerk.

Guildhall,
Worcester.

BOROUGH OF TOTTENHAM.

Applications are invited for the following established post:—

FIRST TOWN PLANNING AND BUILDING SURVEYING ASSISTANT.

A.P.T. Grade IV, £1,065 to £1,220 per annum.

London Weighting allowance of £20 or £30 per annum according to age. Commencing salary according to experience and ability.

Applicants must be Chartered Surveyors or hold an appropriate University degree and experience is desirable with a local authority in town planning and redevelopment procedure, mortgage and general valuation work, acquisition and maintenance of property.

Application form and Conditions of Appointment from Borough Engineer (B), Town Hall, Tottenham, N.15, to whom applications must be delivered not later than MONDAY, 25th APRIL, 1960.

FLINTSHIRE COUNTY COUNCIL.

SURVEYING ASSISTANT required in the County Architect's Department for work in connection with surveying and levelling of building sites and the surveying of property in connection with the Council's varied building programme. Applicants must have sound practical experience of the surveying of land and building, including the use of a theodolite, and be familiar with current legislation relating to the acquisition of land. Salary A.P.T. I (£610-£765). Applications form from the Clerk of the County Council, County Buildings (P.O. Box No. 1), Mold. Closing date 20th APRIL, 1960.

BEDFORDSHIRE COUNTY COUNCIL

invite applications from persons with experience in work of Planning Authority for post of PLANNING ASSISTANT (Development Control), A.P.T. II (£765-£880). Experience of Development Control an advantage, particularly with regard to elevational treatment. Preference given to persons studying for professional examinations. Application forms and further particulars from Establishment Officer, Shire Hall, Bedford. Closing date 28th APRIL.

CITY OF PETERBOROUGH.

CITY ENGINEER'S DEPARTMENT.

ARCHITECT'S SECTION.

Applications are invited for the undermentioned appointments:—

(1) Two SENIOR ASSISTANT ARCHITECTS. Grade A.P.T. IV. £1,065-£1,220 per annum.

(2) Two ARCHITECTURAL ASSISTANTS. Grade A.P.T. II, £765-£880 per annum.

Applicants for (1) should be Associates of the R.I.B.A., or its equivalent at one of the recognised schools of architecture, and for (2) to have passed the Intermediate Examination R.I.B.A.

The assistants appointed will work as a team and will be engaged for the completion of a redevelopment scheme adjacent to the Cathedral, estimated to cost £300,000, comprising houses, flats, maisonettes, etc., in multi-storey blocks, of framed and load bearing construction. Experience in housing and flat design and construction will be an advantage. Possibilities exist for permanent engagement for suitable assistants.

The scheme at present is in the sketch stage and assistants are required for preparing complete working and detail drawings, etc., where good draughtsmanship and knowledge of construction are essential.

Housing accommodation will be provided if required.

Application forms, together with conditions of appointment are obtainable from Mr. L. H. Robjohn, M.B.E., A.M.I.C.E., City Engineer and Surveyor, Town Hall, Peterborough, and should be returned by 12th MAY, 1960.

C. PETER CLARKE,
Town Clerk.

Town Hall,
Peterborough.
April, 1960.

THE NORTH WESTERN ELECTRICITY BOARD.

THIRD ASSISTANT ENGINEER (CIVIL ENGINEERING).

SUB-AREA ENGINEERING DEPARTMENT, PRESTON.

Applicants should be suitably qualified and have had experience in preparing sketch schemes, working drawings, specifications and bills of quantities, in connection with new buildings (offices, substations, Workshops, Service Centres, etc.); also setting out and supervision of work on site. Membership of the Royal Institute of British Architects will be an advantage.

Salary Scale: £1,025-£1,085 p.a. Grade L.10. N.J.B. Conditions.

Applications must be made on a form to be obtained from the Manager, No. 4 Sub-Area, The North Western Electricity Board, 40-41 Lune-street, Preston, and returned to him so as to be received not later than 27th APRIL, 1961.

COUNTY COUNCIL OF ROSS AND CROMARTY.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited from qualified Architects for appointments as SENIOR ASSISTANT ARCHITECTS in the Dingwall Office of the County Architect on Salary Scale £1,039 10s. 0d.-£1,228 10s. 0d.

Housing accommodation will be provided.

Applicants must be Associates of the Royal Institute of British Architects.

Applications giving details of training and experience with attached copies of three recent testimonials should be lodged with Peter S. Leask, A.R.I.B.A., A.M.T.P.I., County Architect, Tulloch-street, Dingwall, not later than SATURDAY, 23rd APRIL, 1960.

W. D. ROSS,
County Clerk.

County Buildings,
Dingwall.
January, 1960.

BOROUGH OF LEYTON.

(in the County of Essex)

COMMITTEE FOR EDUCATION.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the permanent appointment of ARCHITECTURAL ASSISTANT, Grade A.P.T. II, £765-£880 per annum, plus London Weighting. The successful applicant will be employed by the Essex County Council, and will work in the School Architect's Section of the Borough Engineer and Surveyor's Department, Town Hall, Leyton, E.10, five day week is operated.

Details and forms of application from the Borough Education Officer, Education Offices, Kirkdale-road, Leytonstone, E.11, to whom they should be returned within 10 days from the appearance of this advertisement.

D. J. OSBORNE,
Town Clerk.

Town Hall,
Leyton, E.10.

EAST SUFFOLK COUNTY COUNCIL.

APPOINTMENT OF CLERK OF WORKS AT KESGRAVE.

Applications are invited for the post of CLERK OF WORKS at a salary of £14 per week for the erection of extensions at Kesgrave Modern School. The appointment is temporary, terminable by one month's notice on either side; it is anticipated that building work will be in progress for about 20 months.

Applicants must have a thorough knowledge of building construction and all building trades, be conversant with Bills of Quantities, Specifications and Drawings, and be able to measure and check quantities.

Applications, stating age, qualifications, present employment and experience, together with copies of two recent testimonials, must be delivered to the County Architect, Mr. E. J. Cundliffe, A.R.I.B.A., County Hall, Ipswich, not later than first post on MONDAY, the 25th of APRIL, 1960.

Canvassing will disqualify.

KENT EDUCATION COMMITTEE.

MEDWAY COLLEGE OF TECHNOLOGY.

DEPARTMENT OF BUILDING.

LECTURER IN BUILDING SUBJECTS.

Applications are invited from persons with good industrial and teaching experience able to teach Building Construction and Building Quantities up to Higher National Certificate standard.

Applicants should be Associate Members of the Institute of Builders or have an equivalent qualification. The appointment to be taken up on the 1st SEPTEMBER, 1960.

Applications forms and further particulars can be obtained from the Principal, Medway College of Technology, Horsted, Maidstone-road, Chatham, Kent (s.a.e.).

WELWYN GARDEN CITY AND HATFIELD DEVELOPMENT CORPORATIONS.

Appointment of BUILDING COST CLERK. Salary range £670-£765 per annum.

Applications are invited for this vacancy, which is superannuable, in the Works Department of the Corporations at Welwyn Garden City. Applicants should have good experience in the costing of materials, labour summaries and dealing with invoices and accounts. Preference will be given to persons employed in a similar capacity with a local authority. Rented housing accommodation will be made available, if required.

Applications, in writing, giving at least two persons to whom reference can be made, must be received by the General Manager, at Church-road, Welwyn Garden City, not later than 22nd APRIL, 1960.

BOROUGH OF ENFIELD.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the post of ARCHITECTURAL ASSISTANT, Grade A.P.T. I (£610-£765 per annum, plus a London Weighting Allowance of £10-£30 per annum according to age).

Applicants must have had experience in the preparation of plans, specifications, etc., including the maintenance of public buildings.

Saturday mornings are normally free of duty.

Application forms obtainable from H. D. Peake, M.Sc.(Eng.), M.I.C.E., Borough Engineer and Surveyor, 7 Little Park Gardens, Enfield, Middlesex, returnable to the undersigned.

CYRIL E. C. R. PLATTEN,
Town Clerk.

Public Offices,
Enfield,
Middlesex

URBAN DISTRICT COUNCIL OF PONTYPOOL.

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the post of ARCHITECTURAL ASSISTANT on the Staff of the Council's Architect.

The post will be within A.P.T. Grade II (£765-£880) and applicants should have passed the Intermediate Examination of the R.I.B.A.

The post will be subject to the provisions of the Local Government Superannuation Acts, the National Conditions of Service, a medical examination and one month's notice on either side.

Housing accommodation, if necessary, will be provided.

Applications stating age, experience and present post and salary, accompanied by copies of two recent testimonials should be delivered to the Architect of the Council, Council Offices, Pontymoel, Pontypool, Mon., not later than first post on FRIDAY, 22nd APRIL.

H. COOK,
Clerk of the Council.

Municipal Buildings,
Pontypool, Mon.

BOROUGH OF TAUNTON.

ASSISTANT ARCHITECT.

Applications are invited for appointment of ASSISTANT ARCHITECT in the Borough Architect's Department, Special Grade, salary £785-£1,070 per annum.

Superannuable post, subject to medical examination, and to National Conditions of Service. Applications stating age, present position and salary, qualifications, experience and names of two referees to be sent to C. Bacon, F.R.I.B.A., Borough Architect, Flock House, Station-road, Taunton, by MONDAY, 25th APRIL, 1960.

K. A. HORNE,
Town Clerk.

BOROUGH OF EPSOM AND EWELL.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

(A) SENIOR PLANNING ASSISTANT.
(B) SENIOR ARCHITECTURAL ASSISTANT.

Applications are invited for the above posts in the Borough Engineer and Surveyor's Department at a salary on Scale A.P.T. IV (£1,065-£1,220) plus London Weighting, together with an essential user transport allowance.

Candidates for post (A) must be Associate Members of the Town Planning Institute and for post (B) Associates of the Royal Institute of British Architects.

Conditions of appointment and application forms are obtainable from Mr. Colin Cobbett, A.M.I.C.E., M.I.Mun.E., Borough Engineer and Surveyor, Town Hall, Epsom, to whom they must be returned, together with the names of three referees, by FRIDAY, the 29th APRIL, 1960.

EDWARD MOORE,
Town Clerk.

Town Hall,
Epsom,
Surrey.

SURVEYORS

(BASIC GRADE)

required by Ministry of Works in LONDON and READING. London salary scale £830 (at age 25) to £1,300 per annum, Reading salary scale £780 (at age 25) to £1,220 per annum. Starting pay up to £1,125 (London) and £1,065 (Reading) at age 34, according to age and experience. Five-day week, twenty-two days' annual leave. Prospects of promotion and opportunities for permanent and pensionable posts.

Applicants should be Registered Architects by examination or Corporate Members of R.I.C.S. (Building Section). Apply stating age, qualifications and full details of experience to Chief Maintenance Surveyor (Recruitment), Ministry of Works (B), Stanley House, Marsham Street, London, S.W.1.

METROPOLITAN BOROUGH OF CAMBERWELL.

CLEAN AIR ACT.

TECHNICAL ASSISTANT required for Smoke Control areas. Salary on scale £745-£805 inclusive (Miscellaneous Scheme Grade VI). Applicants must have had practical experience in the building trade and must be capable of estimating for, and supervising, the adaptation or replacement of heating appliances for burning smokeless fuel. Some knowledge of the Clean Air Act will be an advantage. Staff canteen. Superannuation. Five-day week. Write giving age and full particulars of experience to Town Clerk, Town Hall, S.E.5. Closing date 25th APRIL, 1960.

MIDDLESEX COUNTY COUNCIL.

SURVEYING ASSISTANT Required in County Architect's Department, A.P.T. II (£765-£880 plus London Weighting up to £30). Established and pensionable. Duties will comprise writing specifications, etc., for minor building works. Application forms (s.a. f'scap env.) from County Architect, 1 Queen Anne's Gate Buildings, Dartmouth-street, S.W.1, returnable by 25th APRIL. Prescribed conditions. (Quote C.324.B.)

CITY AND COUNTY OF KINGSTON UPON HULL.

CITY ENGINEER'S DEPARTMENT.

APPOINTMENT OF TECHNICAL STAFF.

Applications are invited for the appointment of an ENGINEERING ASSISTANT, A.P.T. Grade IV, £1,065-£1,220 per annum, commencing salary according to experience.

Applicants must be Corporate Members of the Institution of Civil Engineers and/or hold the Testamur of the Institution of Municipal Engineers or be Associates of the Royal Institute of Chartered Surveyors. Experience in the design and maintenance of buildings for Baths, Washhouses, Markets, etc., would be an advantage.

Housing accommodation will be made available for the successful married candidate not already resident within the City. Consideration will be given to a contribution towards removal expenses.

Applications on forms which can be obtained from the City Engineer, Guildhall, Kingston upon Hull, are to be returned not later than the 30th APRIL, 1960.

Wm. MORRIS, O.B.E.,
City Engineer.

Guildhall,
Kingston upon Hull.

COVENTRY CORPORATION

require

ASSISTANT HEATING AND VENTILATING ENGINEER. Grade A.P.T. V (£1,220-£1,375), commencing according to qualifications experience, to be responsible for design and contract supervision of heating, ventilating, air conditioning and other building services, in a varied and interesting building programme (including College of Technology, Central Library, Law Courts, Residential College and Bus Station). Associate membership Inst. H. & V.E. desirable. Housing accommodation may be available. Interest free removal expenses loan up to £50. Application forms from City Engineer, Council House, Coventry, returnable by 30th APRIL.

THE UNIVERSITY OF LIVERPOOL.

DRAUGHTSMAN Required in the Fabric Maintenance Department, preferably with Architect's Office experience. £600 to £750 per annum. Starting salary dependent upon qualifications and experience. Five and a half day week; contributory pension scheme.

Apply in writing, quoting reference Number 910B, to the Registrar before 21st APRIL, 1960, stating age, present positions, experience, and give the names of two referees.

WEST SUSSEX COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointment:

SENIOR ASSISTANT ARCHITECT, at a salary in accordance with Grade V (A.P.T.) of the National Scales of Salaries: £1,220 x £55 x £50-£1,375. COMMENCING SALARY WILL BE ACCORDING TO EXPERIENCE.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom all detailed applications must be submitted not later than 5th MAY, 1960.

T. C. HAYWARD,
Clerk of the County Council.
County Hall,
Chichester.

BOROUGH OF EALING.

TWO ARCHITECTURAL ASSISTANTS, within Scale A.P.T. IV according to experience (£1,095 to £1,250 inclusive). Must hold recognised architectural qualifications.

Full particulars and application forms from Borough Engineer, Town Hall, Ealing, W.5.

Closing date 18th APRIL, 1960.

E. J. COPE-BROWN,
Town Clerk.

CORPORATION OF LONDON.

Require BUILDING SURVEYOR for maintenance repairs and dilapidations. £915 to £1,120 per annum.

Final R.I.C.S. examination and previous experience in preparation and settlement of schedules of dilapidations essential.

Applications in writing, giving full particulars of age, experience and qualifications to City Surveyor, Guildhall, E.C.2.

MEDWAY WATER BOARD.

ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT. The Board have an extensive programme of new works and modernisation upon which the successful applicant would be engaged.

Part or fully qualified men or women may apply. Salary will depend upon age and experience in accordance with the National Scale with a maximum of £1,070 p.a. for a qualified assistant.

The appointment would be superannuable and subject to medical examination.

Applications, stating age, qualifications, details of training and experience, to Engineer and Manager, Medway Water Board, Railway-street, Chatham, Kent, by 25th APRIL, 1960.

HUNTINGDONSHIRE.

COUNTY ARCHITECT'S DEPARTMENT.

CHIEF QUANTITY SURVEYING ASSISTANT,
Grade A.P.T. V (£1,220-£1,375).

Applications are invited for the above appointment from Chartered Quantity Surveyors. The person appointed will be directly responsible to the County Architect for the organisation and work of this section of five Assistants.

Application forms may be obtained from S. M. Holloway, A.R.I.B.A., County Architect, County Buildings, Huntingdon, and completed forms should be returned to the undersigned by MONDAY, 25th APRIL, 1960.

A. C. AYLWARD,
Clerk of the County Council.
County Buildings,
Huntingdon.

WEST SUFFOLK COUNTY COUNCIL.

Applications are invited from suitably qualified persons for the post of ARCHITECTURAL ASSISTANT within A.P.T. Grade I (£610-£765).

N.J.C. Service Conditions; post pensionable, medical examination.

One day per week will be allowed for study at a recognised school of architecture.

Application forms obtainable from the County Architect, 13 Westgate-street, Bury St. Edmunds, to be returned as soon as possible.

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

BUILDING SURVEYING ASSISTANTS Required to carry out inspection of buildings for major maintenance and repair works, minor alterations and redecoration, preparation of specifications and estimates (in most cases based on schedule of prices), and supervision of works by contractors and direct labour. Up to £895.

Form, returnable by 30th APRIL, from Architect to Council (EK/B/942/4), County Hall, S.E.1.

BOROUGH OF KENDAL.

SANDYLANDS HOUSING ESTATE EXTENSION.

APPOINTMENT OF CLERK OF WORKS.

Applications are invited from experienced BUILDING TRADESMEN for the above appointment. The salary will be at the rate of £15 15s. per week, and the appointment will last not less than 12 months, subject to satisfactory service, with the possibility of extension, if further contracts are entered into.

Applications, in writing, giving full particulars of age, apprenticeship and experience, and stating whether to their knowledge they are related to any member of or the holder of any senior office under the Council, should be forwarded to the Borough Engineer and Surveyor, Municipal Offices, Lowther-street, Kendal, not later than 10 a.m., 22nd APRIL, 1960.

F. A. RENNISON,
Town Clerk.

CAMBRIDGESHIRE COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the post of ASSISTANT QUANTITY SURVEYOR, Grade I, A.P.T. Division, £610-£765.

Applicants should have had experience in abstracting, billing and site measurements and preference will be given to an applicant who is studying for the R.I.C.S. examinations.

Applications stating age, present and previous appointments, details of training and experience, together with the names and addresses of two referees, should be submitted to the undersigned not later than 26th APRIL, 1960.

CHARLES PHYTHIAN,
Clerk of the County Council.
Shire Hall,
Cambridge.
7th April, 1960.

BOROUGH OF DAGENHAM.

TECHNICAL ASSISTANT (BUILDING).

Salary grade £640 to £795 inclusive at age 26 years and over.

Applicants should have a good knowledge of estimating and procedure for quantities up to City and Guilds standard. Experience in dealing with final accounts an advantage.

Form of application and further particulars from the Borough Surveyor.

Closing date 7th MAY, 1960.

KEITH LAUDER,
Town Clerk.
Civic Centre,
Dagenham.

BOROUGH OF BRENTFORD AND CHISWICK.

BUILDING SURVEYOR required in Borough Engineer and Surveyor's Department, A.P.T. III (£880 to £1,065 per annum) plus London Weighting. Experience required in surveying and valuing property for advances under Housing Acts and dealing with applications for Improvment Grants.

If necessary, the Council may be able to assist with housing accommodation.

Full particulars, conditions of appointment and application form obtainable from Borough Engineer, to be returned to him not later than the 25th APRIL, 1960.

W. F. J. CHURCH,
Town Clerk.
Town Hall,
Chiswick,
W.4.

BOROUGH OF BRENTFORD & CHISWICK.

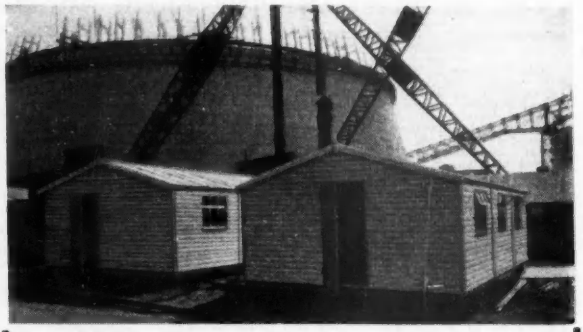
ASSISTANT ARCHITECT
(Special Grade) £815-£1,100 p.a.

Applications are invited for this vacancy. Preference will be given to candidates who have passed the examination for A.R.I.B.A. Commencing salary will be according to qualifications and experience.

The Council may be prepared to assist in the provision of housing accommodation.

Applications to Borough Engineer and Surveyor, Town Hall, Chiswick, W.4, not later than 30th APRIL, 1960.

W. F. J. CHURCH,
Town Clerk.



Site Huts

We can quickly supply Redwood Weatherboard Site Huts in standard sizes, or to your own specification, as already used by many leading contractors.

Photograph by courtesy of Alexander Finley & Co. Ltd., Motherwell.

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This end grain joint on 2"x2" is bearing a total weight of 330-lbs!

Can be used for tiling, screeding, joining etc., and is specified by leading Architects.

UNI-BOND is now stronger and more viscous than any other similar adhesive on the market. Double your money back Guarantee.

Write for brochure No. 22.

FROM

THE LIQUITILE SUPPLY CO. LTD.

48, High Street, Camberley, Surrey.

Tel:- CAMBERLEY 2535

STORTHES HALL GROUP HOSPITAL MANAGEMENT COMMITTEE.

Applications are invited for the post of BUILDING SUPERVISOR. Salary scale £870 to £1,010 per annum, and conditions of service as prescribed by the appropriate Whitley Council. The Ordinary National Certificate of Building or a comparable qualification is desirable. For further particulars and form of application apply to the undersigned immediately.

EDW. WALSH,
Secretary.

Storthes Hall Hospital,
Kirkburton,
Near Huddersfield.

BRITISH RAILWAYS.

Applications are invited for the following posts in the office of the Architect, Eastern Region, British Railways, at King's Cross Station.

LEADING ASSISTANT ARCHITECTS. Starting salary £1,095. Applicants should be qualified Architects with some years' practical experience.

ASSISTANT ARCHITECTS. Salary ranges £833-£1,034. Starting salary will be determined in accordance with qualifications and experience.

The office is engaged on a wide range of interesting buildings and gives responsibility for design, administration and site supervision to those with ability. Five-day week, rail travel concessions. Modern working conditions. Apply in writing to the Architect, Chief Civil Engineer's Offices, British Railways, Eastern Region, King's Cross Station, London, N.1, giving age, experience and qualifications.

CITY OF LEEDS.

WORKS DEPARTMENT.

Applications are invited for the following posts:—

(a) DRAUGHTSMAN, Grade A.P.T. II (£765-£880).

(b) QUANTITY SURVEYOR, Grade A.P.T. II (£765-£880).

(c) ESTIMATING ASSISTANT, Grade A.P.T. I (£610-£765). (2 vacancies.)

Applicants for:

(a) should be experienced in carrying out detailed surveys of existing buildings, levelling, and the preparation of working drawings for adaptations, alterations, and improvements of Corporation properties generally;

(b) must be thoroughly experienced in the preparation of bills of quantities, estimates, site measurement, valuation of works in progress, and settlement of final accounts;

(c) must have a sound knowledge of building construction and be capable of preparing, under supervision, specifications and estimates for works of adaptation and alteration.

The appointments are superannuable—medical examination. Forms of application from the Director of Works, Sweet-street, Leeds, 11, returnable not later than 26th APRIL, 1960.

CITY OF BRADFORD.

CLERK OF WORKS.

Applications are invited for the appointment of CLERK OF WORKS (Post 172) in the Contract Housing Section of the City Engineer and Surveyor's Department at a salary on Grade A.P.T. I (£610-£765).

Candidates must have had experience as a clerk of works or general foreman in the construction of houses, and should hold the Higher National Certificate.

Application forms obtainable from the City Engineer and Surveyor, Town Hall, Bradford, 1, with three testimonials, must be received by the undersigned by 2nd MAY, 1960.

HENRY PATTEN, Town Clerk.
Town Hall,
Bradford, 1.

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

CLERKS OF WORKS required on multi-storey housing schemes to act in the first instance as assistants. Commencing salaries between £815 and £890 with scope for advancement to senior posts for men of ability.

Applicants should possess a sound knowledge of building construction, have served a full trade apprenticeship and had experience in a supervisory capacity on multi-storey housing contracts. Experience in reinforced concrete work an advantage.

Application form, returnable by 29th APRIL, 1960, from the Architect (EK/B/941/4), the County Hall, London, S.E.1.

MIDDLESEX COUNTY COUNCIL.

(1) SENIOR ENGINEER, A.P.T. IV (£1,065-£1,220) for design of heating and hot and cold water services.

(2) ENGINEERING INSPECTOR, A.P.T. II (£765-£880) for supervision, etc. of installation of heating services, etc.

Both posts established, pensionable, London Weighting payable up to £30. Application forms from County Architect (s.a.e.), 1 Queen Anne's Gate Buildings, Dartmouth-street, S.W.1, returnable by 2nd MAY. Prescribed conditions. (Quote C.336B.)

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

ARCHITECTS and BUILDING SURVEYORS required for improvements, alterations and extensions. Jobs up to £20,000. Selected candidates will be responsible for surveys, schemes, working drawings, specifications and supervising contracts. Up to £1,135 according to qualifications and experience. (Salary scales at present under review with probable maximum of £1,250.)

Form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/B/910/4), County Hall, S.E.1.

Amended Advertisement.

SOUTH SHIELDS DISTRICT HOSPITAL MANAGEMENT COMMITTEE.

APPOINTMENT OF BUILDING SUPERVISOR.

Applications are invited for the appointment of a BUILDING SUPERVISOR who will have responsibility for:—

(i) Supervision of the building maintenance work of the Group, and the direction of building trade labour (approximately 30 tradesmen).

(ii) Preparation of building maintenance estimates.

(iii) Preparation of specifications drawings and contracts for minor structural alterations.

(iv) The supervision of larger works undertaken by outside contract.

(v) The maintenance of stores and office records appertainable to these duties.

Applicants must have served a full apprenticeship, followed by experience as a craftsman in an appropriate trade, and also as a general foreman in the carrying out of building contracts. The Ordinary National Certificate in Building or a comparable qualification will be an advantage.

The person appointed will be based at the South Shields Hospital and will be required to reside within South Shields.

The salary scale and all other conditions are in accordance with the Whitley Councils for the Health Services, and the present scale of £745-£880 per annum is under negotiation and expected to be increased in the very near future.

Applications giving full particulars of age, qualifications and experience, and the names and addresses of three referees to reach the Group Secretary, Ingham Infirmary, South Shields, not later than 26th APRIL, 1960.

NORTH - EAST METROPOLITAN REGIONAL HOSPITAL BOARD.

W.G. Plant, Dip. Arch. (Liverpool), F.R.I.B.A., Regional Architect.

EXPANSION OF ARCHITECTS' DEPARTMENT.

The Board is engaged in an expanding programme of hospital development, and the undermentioned appointments offer exceptional opportunities of gaining experience in designing and supervising the construction of hospital buildings. Most of the building work is designed and supervised by the Board's own staff which is now being substantially enlarged, and those appointed will be expected to accept a considerable degree of responsibility. Own car may be used for visiting hospitals, etc., for which adequate mileage allowance paid. Posts pensionable and excellent prospects of promotion. Previous hospital experience is NOT essential. **Salary scales under review.**

SENIOR ASSISTANT ARCHITECTS.

Salary £1,100-£1,295 (new entrants commence at minimum). Applicants must be registered Architects having passed the requisite examinations and must be good designers, capable of preparing working drawings and specifications for, and undertaking site supervision of, all types of building projects.

ASSISTANT ARCHITECTS.

Salary according to age and experience up to a maximum of £1,105. Applicants must be registered Architects having passed the requisite examinations, and must be good designers, capable of preparing working drawings and specifications for, and undertaking site supervision of, all types of building projects, under limited supervision.

Applications giving date of birth, present salary qualifications and experience with dates, together with the names of two referees to Secretary, North East Metropolitan Regional Hospital Board, 40 Eastbourne-terrace, London, W.2, within 14 days.

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

QUANTITY SURVEYING ASSISTANTS Required in Quantities Division for working-up in connection with major building works.

Up to £895 (under review), according to experience. Form from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/B/688/4B), County Hall, S.E.1.

CITY OF BRADFORD.

SENIOR QUANTITY SURVEYOR.

Applications are invited for the superannuable appointment of Senior Quantity Surveyor (Post No. 170) in the City Engineer and Surveyor's Department on A.P.T. IV (£1,065-£1,220).

Candidates should be A.R.I.C.S and should be capable of undertaking all stages of work in the preparation of Bills of Quantities and other contract documents, measurement of work, preparation of certificates for payment of interim and final accounts in connection with multi-storey flats, houses, shops, etc., on large housing estates.

Application forms obtainable from the City Engineer and Surveyor, Town Hall, Bradford, 1, with three testimonials, must be received by the undersigned by 2nd MAY, 1960.

HENRY PATTEN, Town Clerk.
Town Hall,
Bradford, 1.

COUNTY BOROUGH OF BOLTON.

BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for: (a) ARCHITECT, (b) QUANTITY SURVEYOR on Grade A.P.T. III (£880-£1,065) or Special Classes (£785-£1,070) according to qualifications. Commencing salary according to experience.

Applicants for (b) should have experience in taking-off quantities for architectural works, and measuring for interim and final accounts.

Posts superannuable, subject to medical examination. Previous Local Government experience not essential.

Applications, giving full details including experience, present post and salary and naming two referees, should be received by me not later than 25th APRIL.

PHILIP S. RENNISON,
Town Clerk.

MIDDLESEX COUNTY COUNCIL.

TOWN PLANNING ASSISTANTS, A.P.T. II (£765-£880) plus London Weighting up to £30 for either Survey and Plan or Development Control. For candidates who hold an appropriate degree planning experience is not essential. Application forms from County Planning Officer, 10 Great George-street, S.W.1, returnable by 25th APRIL. Prescribed conditions. (Quote C.318.B.)

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

will shortly appoint a DEPUTY SECRETARY to the Board of Architectural Education.

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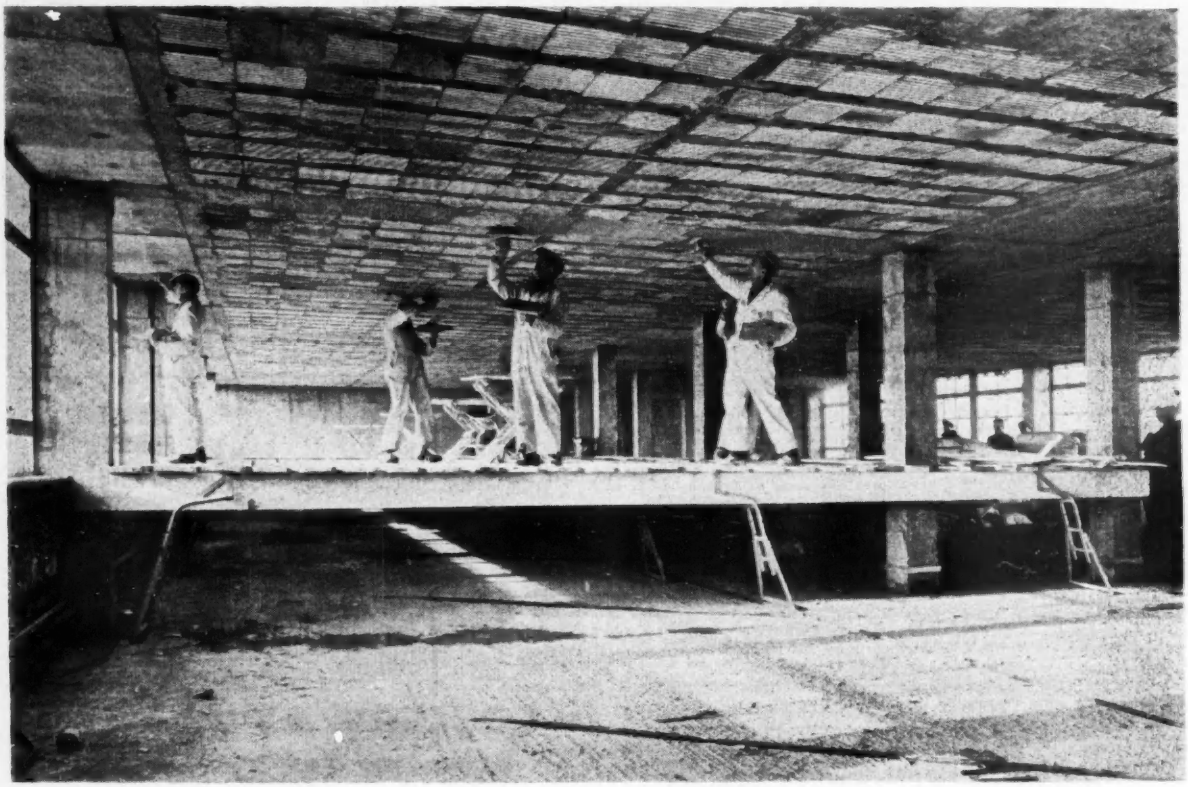

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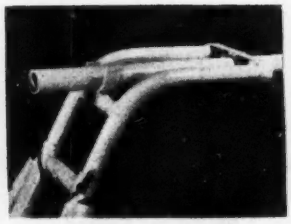

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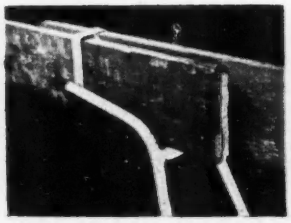

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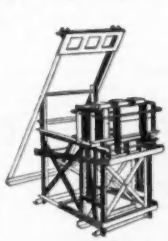

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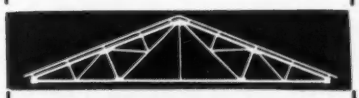

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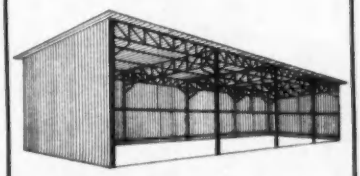

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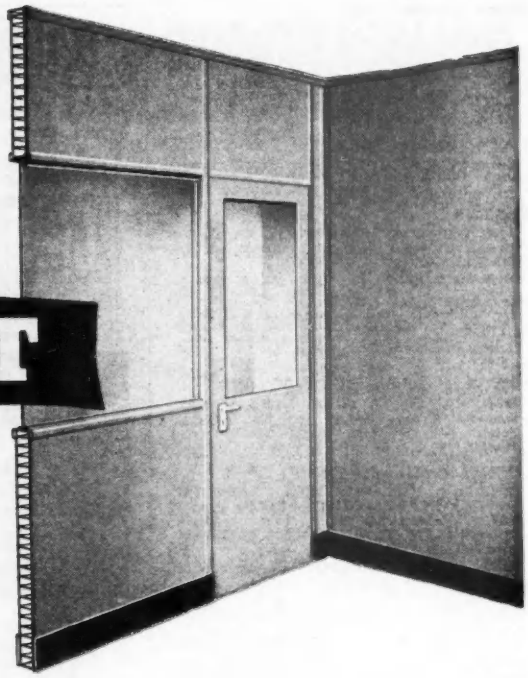

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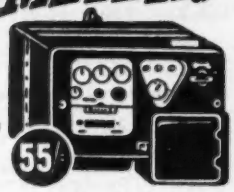

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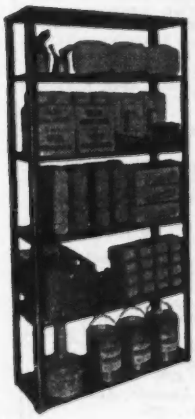

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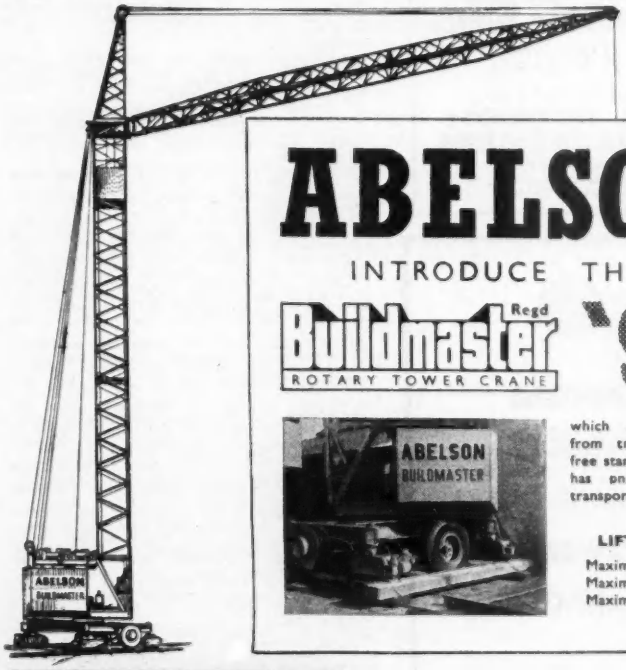

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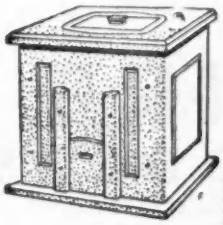

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Box No. 2586, "The Builder"

EXPERIENCED SURVEYOR

Required by firm of Building and Civil Engineering Contractors in the S.W.1. area.

Applicants should have a thorough knowledge of the Industry and be capable of handling contracts from commencement to Final Account stage.—Please write in the first instance, giving full particulars, to **Box 2519, "The Builder."**

QUANTITY SURVEYOR (ASSISTANT)

As a result of continued expansion Richard Costain Limited have a vacancy for a young man aged 23—29 with experience of site measurement and the preparation of interim and final accounts.

This appointment presents excellent opportunities for a progressive career and for obtaining a sound practical knowledge of the application of modern planning and management techniques on building sites.

Please write to:—

Personnel Officer,

111, Westminster Bridge Road, London, S.E.1

ASSISTANT QUANTITY SURVEYOR

Required by London Contractors. Capable of taking-off, site measuring, and preparation of final accounts, excellent prospects, staff pension scheme, A.I.Q.S. or A.R.I.C.S. preferred. Applications stating age, qualifications and experience.

Box 2551
The Builder

BRITISH HOME STORES LIMITED

require

ASSISTANT BUILDING SURVEYOR

Preference will be given to Applicants with previous experience connected with Chain Stores, and should be able to provide details of their necessary qualifications. Position is progressive and permanent and the work is varied and interesting.

Applicants must be willing to travel, but will be based at Head Office in London, adequate travelling allowances. Commencing salary by arrangement. Five-day week. Contributory Pension Scheme and Non-Contributory Life Assurance scheme.

Applications in writing, giving full details of age, experience and salary required to:-

Personnel Manager,
British Home Stores Ltd.,
129-137, Marylebone Road, London, N.W.1.

MEASURING SURVEYOR

required by expanding firm of Painting Contractors for Valuations and Final Accounts. Resident in London, age 25–40. Applications will be treated with utmost confidence. Please write giving full details to:—

G. & C. WHITTLE LTD.,
Cleveland Works, Cleveland Road,
Acton Green, W.4.

A. E. A. PROWTING LTD.

require a

SURVEYOR in the Pre-Planning department capable of taking off quantities and preparing schedules for domestic dwellings. High salary and bonus and pension scheme with permanent progressive position offered to enthusiastic applicants.

Apply,
BURY STREET, RUISLIP,
MIDDX.

J. JARVIS & SONS LTD

require

ASSISTANT SURVEYORS

mid-twenties.

Apply stating experience, salary required to:

239 Vauxhall Bridge Rd., S.W.1

SENIOR BUILDING SURVEYOR

Old-established National B. & C.E. Contractor in the Midlands with an expanding building programme invites applications from fully trained Building Estimators able to work on own initiative for Contracts up to £1 m. value.

Top salary, pension scheme, etc., available to suitable man.

Applications should state age, training, recent experience, etc., in confidence to

Box 2583, "The Builder"

A NATIONAL Firm of Building Contractors engaged extensively on housing developments from their London Office, situated in the West End, Require the following staff to meet the immediate requirements of their expansion policy.

(a) ENGINEER SURVEYORS. Required at Senior, Intermediate, and Junior level, to deal with the design of layouts for roads, sewers and services. All grades of staff are required and learners would not be objected to in addition to the above as the Company has a comprehensive training scheme.

(b) ARCHITECTS (MALE OR FEMALE). Architectural staff Required of Senior, Intermediate, and Junior level for the design of houses, flats, and other commercial premises. Wide scope given for initiative and originality in this field.

(c) ESTATES DEPARTMENT. Required to strengthen the Estates Department staff of all categories including Land Scouts, Valuers, and Junior Administrative Staff. Unqualified staff not objected to. Ability is of more interest than experience.

All the above posts are for permanent staff and are superannuated after a probationary period. A bonus scheme is in operation and the Company supplies cars in some of the posts.

Rep'y: STAFF MANAGER, Box No. DL6627, c/o R. F. WHITES, 72 Fleet-street, London, E.C.4.

ESTIMATOR/SURVEYOR

required by

progressive firm N.E. London

L.I.O.B. an advantage. Pension scheme. Apply in writing giving details to

Box No. 919, "The Builder"

ASSISTANT SURVEYORS

ASSISTANT SURVEYOR Required, not necessarily qualified, but with sound experience of simple conversion schemes, works of maintenance nature, dilapidations and compensation claims including plans, specifications, estimates and accounts. Commencing salary £700.—Reply HUGHESDON & HINDS, Chartered Surveyors, 4 Abingdon-road, Kensington High-street, W.8.

ASSISTANT SURVEYOR Required for site measurement with Quantity Surveyors and Subcontractors and final account preparation. Permanent position.—Write stating age, experience and salary required to SPICERS (BUILDERS), Ltd., Ombersley-road, Worcester.

SENIOR ASSISTANT/SURVEYOR Required by well established and expanding firm of Contractors. Progressive post with excellent prospects for keen, ambitious man able to take responsibility in estimating, ordering materials, final accounts, site measuring and supervision.—Write giving full details of experience, age and salary required to The Managing Director, BRACKLEY BUILDERS, Ltd., North Bar-place, Banbury, Oxon.

ASSISTANT BUILDING SURVEYOR Required, capable of Taking-off quantities from drawings, site measuring, valuation, final accounts and supervision. Write, stating age, experience and salary required. Good opportunity for right applicant.—F. HITCH & CO. Ltd., Church-street, Ware, Herts.

ASSISTANT MEASURING SURVEYOR Required for growing organisation in S.E. England. Must be capable of working on own initiative on interim valuations and final accounts. This will be a progressive post for the right man.—Box 2449, "The Bui'der"

McMANUS & COMPANY have a limited number of vacancies for ASSISTANT SURVEYORS for work in and around their Head Office at Potters Bar. The positions offered are progressive and carry excellent salaries and prospects.—Write stating age, experience and brief details of past career to the Chief Surveyor, McMANUS & CO., Mimms Hall-road, Potters Bar, Middx.

BUILDING SURVEYOR ASSISTANT Required by PERCY V. BURNETT & PARTNERS for interesting and varied work.—Apply stating experience and salary required to 12 Bloomsbury-square, London, W.C.1, or telephone: HOLborn 6177.

BUILDING SURVEYOR'S ASSISTANT Required in North West Kent area. Aged 18-20, willing to learn all aspects of the trade and to assist buyer. Basic knowledge of Quantities and Building Materials essential. Good prospects for keen and conscientious worker, in expanding business.—Write, stating age, experience and salary required, Box 2578, "The Builder."

ASSISTANT SURVEYOR Required for quantities department. Young man studying for H.N.C. and with at least two years' experience preferred. Should be capable of handling bonus schemes, costing, measuring sub-contractors and general routine.—Apply in writing, stating age and experience, to M. HOWARD (MITCHAM) Ltd., Wandle House, London-road, Mitcham, Surrey.

JUNIORS

4-DAY WEEK opportunity for juniors and/or post-intermediate students to keep abreast with their school work and undertake interesting and varied office work including Schools, Hospitals, and Public Houses. Good salary according to qualifications and experience. 5-day working and overtime when desired, luncheon vouchers.—Appointment by telephone ROYal 6216. STEWART HENDRY & SMITH, F/F.R.I.B.A., A.M.T.P.I., 90 Fenchurch-street, London, E.C.3.

JUNIOR Required in City Chartered Quantity Surveyor's Office. To start now or in August. —Write, stating details of education, Box 2454, "The Builder."

TAKERS OFF

TAKING-OFF ASSISTANTS (Intermediate standard) Required by Westminster firm of Quantity Surveyors (close Victoria Station). Salary £650-£750 per annum, according to experience. Five-day week, overtime extra.—Full details of experience, age, etc., to Box 2557, "The Builder."

SENIOR AND JUNIOR TAKERS-OFF Required by London Chartered Quantity Surveyors.—Please reply stating age, experience and salary required to G. F. K. WHITE & HAYTON, F./F.R.I.C.S., 18-39 Parliament-street, S.W.1.

ASSISTANT Wanted in Bath, equivalent R.I.C.S. Intermediate standard. Some outside measuring. Permanent post. 5-day week.—Apply in own handwriting, stating age and experience, to Box 2303, "The Builder."

JUNIOR TAKER-OFF Required by Chartered Quantity Surveyors in the Holborn district. Excellent opportunity for advancement.—Please reply giving age, experience and salary required to Box 2336, "The Builder."

TAKER-OFF Required by London Quantity Surveyor.—Please write stating age, experience and salary required to Box 2337, "The Builder."

TAKER-OFF Required in West End Professional Office. Salary £1,250 without overtime.—Write, stating age and experience, Box 2331, "The Builder."

TAKER-OFF Required for R.C. Frames and Floors. —Apply, stating age, experience and salary, to Box 2354, "The Builder."

TAKER-OFF MEASURER Required to take charge of Quantity Surveyor's busy site office near Manchester. Commencing salary £1,500 p.a.—Box 2360, "The Builder."

TAKER-OFF Required by Westminster Chartered Quantity Surveyors. Intermediate to Final standard. Near Victoria. L.Vs. Five-day week.—Write stating age, experience and salary required, Box 2418, "The Builder."

TAKER-OFF Required by Chartered Quantity Surveyors for Sussex coast office. L.Vs. Write stating age, experience and salary required.—Box 2419, "The Builder."

JUNIOR TAKER-OFF with minimum 12 months' Taking-off experience Required. Varied work; some account settlement.—Apply, stating age, experience and salary required.—H. J. RIDGE & PARTNERS, Quantity Surveyors, 42 Hythe Bridge-street, Oxford.

ATCOST
(FACTORIES) LTD

Builders of Industrial Estates
require

Experienced
TAKERS-OFF

(need not be qualified)

These permanent, superannuated appointments occur in the Tunbridge Wells office of our rapidly expanding nation-wide organisation; working conditions are excellent.

Please apply, in writing only, stating experience and salary required, to The Personnel Manager,

Atcost (Factories) Ltd.,
York House,
Tunbridge Wells,
Kent.

One of the **ATCOST** Group of Companies.

TAKERS OFF
Senior and Assistant

required by London Contractors for Industrial and Domestic "Package Contracts". Interesting, permanent and progressive positions for those with initiative, adaptability and good constructional knowledge. These are responsible positions and only those with high ability will be considered. Write in confidence, giving details of past employers and experience, together with salaries, to

Box No. 2538 "The Builder"

AUSTRALIA. Highly paid situations for TAKERS-OFF. See advertisement in Overseas Section.—Box 2487, "The Builder."

TAKER-OFF Required in the Aylesbury office of HENRY COOPER AND SONS, Chartered Quantity Surveyors.—Applications to be addressed to 1 Bourbon-street, Aylesbury, Bucks, giving details of experience and salary required.

TAKERS-OFF Required by London Chartered Quantity Surveyors for permanent staff.—Write stating age, experience and salary required to Box 916, "The Builder."

TAKER-OFF of Intermediate to Final standard Required by Westminster Quantity Surveyors. Excellent prospects in London Office and opportunities for overseas tours.—Apply, stating age and experience, Box 923, "The Builder."

SENIOR TAKER-OFF Required by firm of Quantity Surveyors in Victoria area. Varied work and excellent prospects.—Apply with brief details of qualifications and experience, Box 927, "The Builder."

MANCHESTER Quantity Surveyors (London Firm) Require TAKER-OFF. Need not be qualified but must be thoroughly experienced. Five-day week. Paid overtime. Pension Scheme.—Box 924, "The Builder."

MANCHESTER. Quantity Surveyors (London Firm) Require Staff. Good salary. Overtime. Pension Scheme. Five-day week. (a) SENIOR TAKER-OFF. Must be experienced man. (b) SENIOR MEASURING SURVEYOR. For duties on Final Accounts. (c) SENIOR WORKER-UP. Must be experienced man. Willing to take responsibility.—Box 926, "The Builder."

SENIOR TAKERS-OFF Required in Bloomsbury Chartered Quantity Surveyors' Office. First-class working conditions, including Luncheon Vouchers and pension scheme, with good prospects offered to suitable applicants.—Apply, stating age, qualifications, academic background and salary required, to Box 959, "The Builder."

JUNIOR TAKER-OFF Required by Central London C.Q.S. L.Vs. 5-day week. Salary £750-£1,000.—Box 2208, "The Builder."

TAKER-OFF (recent A.R.I.C.S. or this year's finalist) Required by Chartered Quantity Surveyors near Victoria Station. Permanent appointment to work on large and interesting projects. Pension Scheme. Luncheon Vouchers.—Write full particulars to Box 2293, "The Builder."

TAKER-OFF Required by LESLIE G. DIGHT, F.R.I.C.S., 35 Portland-place, W.1. Salary £900 to £1,000 p.a.—Reply stating age and experience.

CHARTERED QUANTITY SURVEYOR (London, W.1). Requires competent TAKERS-OFF. Highest salary for suitable applicants. Varied and interesting contracts.—Write, stating age, experience and salary required, to Box 2219, "The Builder."

WORKERS UP

WORKER-UP Required by London Chartered Quantity Surveyors.—Please reply stating age, experience, and salary required to G. F. K. WHITE & HAYTON, F.F.R.I.C.S., 38-39 Parliament-street, S.W.1.

WORKER-UP Required by firm of Quantity Surveyors, Westminster. Five-day week and Luncheon Vouchers. Good prospects and opportunities for the right man.—Apply stating age and experience to Box 980, "The Builder."

EXPERIENCED WORKER-UP Required by London Quantity Surveyors. Salary £750-£1,000 p.a. according to experience.—Write, giving full particulars of qualifications, and age, to Box 954, "The Builder."

SENIOR WORKER-UP for London Quantity Surveyors.—Write, stating age, details of experience and salary required, to Box 953, "The Builder."

WORKERS-UP Required by London Chartered Quantity Surveyors for permanent staff.—Write stating age, experience and salary required to Box 905, "The Builder."

WORKER-UP Required in City Chartered Quantity Surveyor's Office.—State experience and salary required, Box 2453, "The Builder."

WORKERS-UP
required

for permanent progressive positions, with good prospects for advancement with consequent salary increases.

Write in first instance in confidence, giving details of past employers and experience and stating salary required.

Interviews out of office hours if necessary.

Box No. 2539 "The Builder"

WORKER-UP Required by Westminster Chartered Quantity Surveyors' office near Victoria. Good opportunities. L.Vs. Write in own handwriting stating age, experience and salary required.—Box 2420, "The Builder."

WORKER-UP with some experience Required by C.Q.S. in W. Sussex. Opportunity for Site measuring. Five-day week. L.Vs. Write stating age, experience and salary required.—Box 2427, "The Builder."

WORKER-UP Required by London Chartered Quantity Surveyors. High remuneration for good worker.—Please reply, in confidence, to Box 986, "The Builder."

EXPERIENCED WORKER-UP Required by firm of Chartered Quantity Surveyors in West End, London.—Reply stating experience, age, salary required to Box 931, "The Builder."

WORKERS-UP and intelligent JUNIORS, wishing to train for and qualify as Chartered Quantity Surveyors, Required in Bloomsbury Chartered Quantity Surveyor's Office. First-class working conditions, including Luncheon Vouchers, and opportunities for progressive training offered to suitable applicants.—Apply, stating age, experience, if any, academic background and salary required, to Box 971, "The Builder."

WORKER-UP Required in Bath. Post will suit Trainee who wishes to proceed to Taking-off after period of not less than 1 year. Permanent post.—Write, stating age and experience, to Box 2304, "The Builder."

PERMANENT WORKER-UP Wanted at Bath. Would suit Builder's Clerk who wishes to re-train.—Write, stating age and experience, to Box 2305, "The Builder."

WEST END Chartered Quantity Surveyors Require WORKER-UP/JUNIOR TAKER-OFF.—Please reply, stating age, experience and salary required, to Box 2306, "The Builder."

WORKER-UP Required by London Chartered Quantity Surveyor.—Write, stating age, experience and salary required, to Box 2335, "The Builder."

COMPETENT WORKER-UP Required in Quantity Surveyors' Office on South Coast (Portsmouth-Southampton area) with at least three years' experience. Five-day week.—Write, stating age, experience and salary required, to Box 2332, "The Builder."

EXPERIENCED WORKER-UP Required for permanent position with London Quantity Surveyors. Commencing salary not less than £850 p.a.—Write stating age, details of experience, to Box 2357, "The Builder."

SENIOR WORKER-UP Required by Chartered Surveyors, Westminster.—State experience, age and salary required. Box 2582, "The Builder."

WORKER-UP Required, 21-30, by Birmingham Chartered Quantity Surveyors, with opportunities for taking-off and site measuring. Five-day week, paid overtime, luncheon voucher scheme, fortnight's holiday this year with additional holiday for each year's service. Salary £450-£750 according to age and experience.—Box 2592, "The Builder."

WORKER-UP Required by Chartered Quantity Surveyors in Holborn Office.—Apply Box 948, "The Builder."

ENGINEERS

SITE ENGINEER Required in the Kent area for carrying out all engineering duties involved on various Housing sites. The appointment is permanent and pensionable with prospects for advancement.—Apply in writing to JAMES MILLER & PARTNERS, Ltd., Pinn-lane, Hayes, Middlesex.

SITE ENGINEERS Required for building contracts, London area, must have considerable experience in multi-storey concrete framed buildings. Good salary for men with initiative.—Apply in writing, stating age and experience, M. J. GLEESON (CONTRACTORS), Ltd., Haredon House, London-road, North Cheam, Surrey.

ASSISTANT ENGINEER/SURVEYOR

required for land surveys, design of roads and sewers, setting out and supervision of road works by direct labour. Applicants should have received professional training and be of intermediate standard.

This is a new post in an expanding department and provides excellent prospects for the right man. Non-contributory pension scheme. Applications in writing stating age, qualifications, experience and salary required to

The Engineer & Surveyor,
A. J. WAIT & CO. LTD.,
Wellington Crescent, New Malden,
Surrey.

ENGINEER

Experienced in setting out also construction of external services, etc., on large building and factory sites in the Midlands area. The position is progressive and carries a good salary, etc., to the right man.—Applications should state full details of training, experience, etc., to WILSON LOVATT & SONS, Ltd., Clarence-street, Wolverhampton.

ENGINEERS and DRAUGHTSMEN urgently Required as permanent additional staff in Contractor's London office for both reinforced concrete work and steelwork. Attractive salary range.—Ring Mr. Stevens, COV 3136.

SITE ENGINEER

Vacancy in Birmingham area on large contract for Site Engineer to join contract staff of a National C.E. & B. Contractor. Duties at first will consist of Setting out, Levels, Site Engineering Works, etc. Good prospects for rapid promotion to the right man and would suit a young keen Engineer with ambition. Apply in confidence to

Box No. 2584, "The Builder"

REINFORCED Concrete Engineers and Contractors, Victoria, Require a CHIEF ENGINEER to interview Architects and Engineers, and to control the Drawing Office in preparation of schemes and working drawings, etc., for various types of R.C. buildings, including multi-storey blocks of flats. Preference given to a qualified man and those earning less than £1,750 p.a. at present need not apply. Also CHIEF ESTIMATOR, those earning less than £1,500 need not apply. Subject to satisfactory service the posts are pensionable. 5-day week. L.Vs. Holiday arrangements will be honoured.—Apply, giving full particulars, experience, qualifications and salary expected, to Box No. DA409, c/o Whites Ltd., 72 Fleet-street, E.C.4. All replies treated in the strictest confidence.

JOHN LAING AND SON LIMITED
have vacancies for
PLANNING ENGINEERS

who would be responsible for planning duties at the Regional Office in Bristol.

Applicants should be between 25 and 30 years of age with site management experience. Preference will be given to those with experience in the application of work study and planning techniques. The Company has an established policy of employment, security and all posts are progressive.

Apply in writing stating age and experience to

Personnel Manager (PE.9)
John Laing and Son Limited,
Mill Hill, London, N.W.7.

ESTIMATORS

ESSEX Builders' Merchants and Roofing Contractors have a vacancy on their Contracts staff for a capable and energetic man with office and site experience of roofing.—Applications, which will be treated in the strictest confidence, should be addressed to Mr. S. W. Penstone, HARRISON & Co. (B.M.), Ltd., Norman House, Leytonstone, London, E.11.

W. J. SIMMS SONS & COOKE LTD.
SHERWOOD · NOTTINGHAM

are expanding their Estimating dept. and offer opportunities for

SENIOR ESTIMATORS

capable of preparing tenders for either Building Work of all description and/or Civil Engineering Works—roads, sewers, sewage works, colliery works, reinforced concrete works—and for

JUNIOR ESTIMATORS

wishing to continue their training in either department.

The posts are permanent and pensionable and there are excellent staff conditions of employment.

Existing holiday commitments will be honoured.

Written application stating age, qualifications, experience, starting salary required, addressed to the Managing Director, will be treated as strictly confidential

TOKEN CONSTRUCTION COMPANY LTD.

require

SENIOR ESTIMATOR

Experienced in all types of construction, including reinforced concrete structures. Knowledge of complete cost breakdown necessary. Good salary and prospects to the right man.

Apply **Personnel Director, 68 Mount Street, London, W.1**

ESTIMATORS REQUIRED

by large joinery and door manufacturers.

Candidates should have extensive experience in the preparation and pricing of tenders for mass-produced and specialised joinery, also the capacity to work competently under minimum supervision. Permanent progressive positions are assured to the right men. Contributory Pension Scheme available after satisfactory probationary period. Applications containing full particulars, qualifications, age and experience to date, when available also an indication of salary expected, addressed to:—**The Managing Director, The Rothervale Manufacturing Company Limited, Woodhouse Mill, Near Sheffield.**

ESTIMATOR/ SUPERVISOR

required for Small Works Department of West End Builders specialising in good class alterations and decorations. Contracts up to £15,000.

Write, stating age, experience and salary to

Box 2490, " The Builder "

SENIOR ESTIMATORS

National Contractors require first class applicants with wide estimating experience, particularly with large contracts, modern plant and construction methods. Knowledge of detailed price build up essential. Good salary for right men. Pension Scheme. Apply:

Box No. 2587, "The Builder"

ESTIMATOR/SUPERVISOR for painting contracts Required by young progressive company, Romford area. Used to site measuring, new and old, commercial and industrial works.—Write stating age, experience and salary required to Box 2248, " The Builder."

ESTIMATOR Required by Builder, Beckenham. Must be capable man used to tendering for general building works. Sound position for sound man.—Box 925, " The Builder."

BUILDING ESTIMATOR Required for large City Quantity Surveying firm. Age 30-35. Must be experienced in orthodox analyses of prices and have experience in negotiation. Salary £1,200 p.a. plus overtime.—Box 2359, " The Builder."

ESTIMATOR/SURVEYOR Required by medium-sized builder in Hampstead, able to take off quantities from drawings and capable of carrying out small works from enquiry to final account.—State age, previous experience and salary required to Box 2371, " The Builder."

JOINERY ESTIMATOR Required for medium-size works in the West Country, manufacturing hard and softwood joinery. The post is a responsible one, offering good prospects for a man possessing the necessary experience. A good commencing salary will be paid and a staff pension scheme is in operation.—Apply stating age and full details, including salary required, to Box 2421, " The Builder."

ESTIMATOR'S ASSISTANT Required to extract and control subcontractor's and supplier's inquiries and to assist generally. First-class opportunity for keen, intelligent man eager to learn estimating.—Reply Box 2457, " The Builder."

ASSISTANT ESTIMATOR/SURVEYOR Required for Building Contractor's office in Reading, competent to deal with small and medium sized contracts from inquiry to final account with minimum supervision. House available after satisfactory trial period. —Apply giving full particulars of age, experience and salary expected to Box 2494, " The Builder."

ROOFING ESTIMATOR Required for our Romford office. Must be fully conversant with all types of roofing, particularly asbestos sheeting.—Apply stating age, experience, salary required, etc., to Manager, HALL & Co., Ltd., 33 Cherry Orchard-road, Croydon, Surrey. Applications treated confidentially.

ESTIMATOR Required by FORD & WALTON Ltd. Must be fully experienced and have a sound knowledge of modern building methods. The post is at Stratford, E.15, until January, 1961, when the Company is moving to new headquarters being built at Wembley Park.—Apply stating age, experience and salary required to Personnel Manager.

ESTIMATORS AND ASSISTANT ESTIMATORS Required for medium-sized Builders in East London, competent to deal with all types of work between £2,000-£50,000. Good opportunity for advancement. Bonus and Pension Schemes in operation.—Write stating age, experience and salary required to Box 2553, " The Builder."

ESTIMATOR/SUPERVISOR for builders established 60 years in Central London. Used to alterations, decoration and general building work up to about £10,000. Capable of preparing own specifications for smaller works.—Apply with full particulars to Box 2554 " The Builder."

ESTIMATOR/SURVEYORS with good all round experience and preferably accustomed to managing their own contracts who wish to join a long established company with a progressive outlook are invited to fill the several vacancies arising in our current expansion programme. Good terms for permanent employment and exceptional prospects for competent men.—Please send full particulars in confidence, stating present employers General Manager, KEIL & VEVERS, Ltd., Poplar Works, Frimley-road Camberley Surrey.

ROOFING ESTIMATOR/SUPERVISOR, some knowledge slating, tiling, asbestos sheeting and lining. London firm. State age, experience and salary required.—Box 2604, " The Builder."

SENIOR ESTIMATOR/SURVEYOR Required. Applicants should be experienced in estimating for all classes of building work and capable of pricing small contracts from own dimensions. A sound knowledge of quantity surveying, contract administration and final accounts is essential. The position is permanent.—Write giving age, details of training, experience and salary expected to THOMAS & EDGE, Ltd., 52 Maybean-street, Woolwich, S.E.18.

JUNIOR ESTIMATOR AND ASSISTANT TO MANAGER Required immediately by small expanding building contractors. Progressive position. —Apply J. FRANKS (GUILDFORD), Ltd., 35 Sydenham-road, Guildford.

THE LONDON FERRO-CONCRETE CO. LTD.
MAXTED ROAD, HEMEL HEMSTEAD.

The continued rapid expansion of our Company makes it necessary for the following additions to be made to our executive staff.

a. ESTIMATORS

Applicants should have at least 5 years' experience with building and civil engineering contractors. Preference will be given to men with specialised knowledge of R.C. frameworks and structures.

b. SURVEYORS

Applicants should have at least 5 years' experience of preparing interim and final valuations with building and civil engineering contractors.

The age range for the above positions is 25/40, and applications should be made to the Chief Estimator and Surveyor. Housing accommodation can be made available if required.

PLUMBING

Applications are invited from experienced Estimators/Surveyors who are capable of supervising all types of Contracts. The position offers scope for advancement within an expanding organisation. Apply with fullest details to:

MULHEARN & CO. LTD., High Church Street, Basford, Nottingham.

MEDWAY BUILDINGS & SUPPLIES LIMITED
Phoenix Wharf, Rochester

Offer good opportunities to men with experience of Structural Woodwork or Joinery who are conversant with general building practice and can work on their own initiative as

ESTIMATORS
DRAUGHTSMEN
ARCHITECTURAL ASSISTANTS
PLANNERS

Modern offices, salaries commensurate with experience and ability, unusually good Pension and Life Assurance schemes, good canteen, three weeks' holiday after five years. Write stating age, qualifications and previous experience.

STAFF SELECTION SERVICE
5 High Street, Crayford, Kent.

invite applications for the vacancy of

BUILDERS ESTIMATOR

with our client, whose office is situated at Stepney, E.1. This position offers considerable scope for a man aged 25/45 years, who is capable of dealing fully with enquiries, estimates and organisation of work. Salary in the range £600–£800 p.a.

Tel: Crayford 23454

MANAGERS

MANAGER Required for old-established builders in small but growing town in S.W. Surrey. 20 employees. House available. Suit young, energetic man.—Write Box 2555, " The Builder."

CONTRACTS MANAGER

Permanent position with pension for experienced man to take charge of Contracts Department of Hollow Block Floor and Reinforced Concrete Engineers.

F. BRADFORD & CO. LTD., Angel Road, Edmonton, London, N.18.

LESLIE
& CO. LTD.

require in their London Office

CONTRACT MANAGER Applicants should have a sound knowledge of modern building methods and experience in a similar capacity. Every opportunity exists to use initiative, excellent prospects of promotion in a forward looking and expanding organisation.

ESTIMATOR Applicants should have experience in estimating for major building projects. Sound knowledge of price analysis utilising modern methods essential. The post requires initiative, ability to work under minimum supervision.

MEASURING SURVEYOR Applicants must be fully experienced in interim valuations, variations and site measurement up to Final Account. These positions carry an attractive salary, good annual bonus and non-contributory pension scheme. The Company operates on a large scale throughout the country having branch Offices in Scotland, Darlington, Bradford, Basildon and Hemel Hempstead, but these appointments are in the London Office at Kensington.

Apply in confidence, giving full particulars to the **Secretary, Leslie & Co. Ltd., Peel Street, Kensington, W.8.**

GENERAL MANAGER
BUILDING & CONTRACTING

A long established and progressive Company, operating in the North of England with a turnover at present of approximately £2 million p.a. wishes to appoint a General Manager to consolidate a re-vitalised organisation and to lead the Company to further expansion and increasing profits.

He will be responsible for all the Company's activities and will thus need in addition to experience of Contract Management, a sound working knowledge of Contract Law, methods of tendering, surveying and modern principles of Management. He should also possess an understanding of general financial and commercial aspects of business.

However, an applicant will be considered if he does not possess detailed knowledge of this Industry if he can prove exceptional Managerial ability.

The successful applicant will be co-opted to the Board three months after appointment with a view to being offered a seat at the end of his first year. If successful, he can look forward to being appointed Managing Director within approximately five years.

This post will attract those between the ages of 38 and 50, at present earning between £2,500 and £3,000 p.a. and who are looking for further prospects.

Applications, giving fullest details, none of which will be disclosed to our Client or any other party without the applicant's consent, should be addressed to **URWICK, ORR & PARTNERS, 80, Station Parade, Harrogate, Yorkshire**, quoting reference GM/1392, on the envelope.

PLANNING ASSISTANT

RICHARD COSTAIN LTD. have a vacancy for a Work Planning Assistant whose duties will include the preparation of overall plans for building contracts, and the breakdown of these plans into short period work loads.

Candidates aged 24—30 should possess H.N.C. in building and have knowledge of Quantities, Costing, and the use of modern plant on site. Training and experience in work study and planning techniques desirable.

Please write to:

PERSONNEL OFFICER
111 WESTMINSTER BRIDGE ROAD, LONDON, S.E.1

TROLLOPE & COLLS LIMITED
Invite applications for the following posts:

1. **MANAGER**
for building contracts, up to £1,000,000 in value. Must be experienced in planning, work study, cost control and bonusing.

QUANTITY SURVEYORS
fully experienced in site measuring, preparation of valuations, and final accounts on above building contracts.

2. **MANAGER**
for specialist department undertaking all forms of Reinforced Concrete construction including multi-storey building frames. There are considerable prospects of expansion. Qualified Engineer an advantage, but not essential.

ESTIMATOR/SURVEYOR
fully experienced in preparation of estimates, and final accounts for above work. Experience with Reinforced Concrete Company desirable.

These posts will be permanent and pensionable, carrying salaries commensurate with the responsibilities involved.

Applications, giving fullest particulars of qualifications, experience and salary required, should be sent to: The Assistant Secretary,

Trollope & Colls Ltd.,
One Noble Street, Gresham Street, London, E.C.2.

INTERIOR Decorators (West End) Require a young man aged about 25 years for measuring and to assist manager. Must be experienced in the trade and able to drive.—Box 2573, "The Builder."

A MANAGER for acoustic and thermal ceiling fixing organisation. Candidates must have long technical experience and be fully conversant with estimating, draughtsmanship and onsite supervision. A wide connection with architects and contractors is necessary. Rewarding salary, expenses and commission.—Box 2565, "The Builder."

ROOFING MANAGER Required in West Kent area. A knowledge of asbestos cladding, etc., an advantage but not necessarily essential. Pensionable position.—Write stating previous experience and salary required, Box 2540, "The Builder."

PERSONAL TECHNICAL ASSISTANT TO DIRECTOR Required by Building and Civil Engineering Company near Leigh, Lancs., to act in office as complete right hand and on own initiative during Director's frequent absence. Applicant to be of marked technical ability and tact, age 30/40. Prospects limited only to applicant's ability.—Box 2564, "The Builder."

DECORATING MANAGER

An important building and civil engineering group seeks a manager for its decorating department in London to be responsible to the managing director for a wide variety of renovation and interior decoration work from initial negotiations right through to final accounts. This self-contained department has 100 employees and a turnover exceeding £100,000 with considerable scope for expansion. Salary about £2,000, car, bonus related to the department's profits and first-class prospects in a growing organisation.

Candidates must be men aged 35-45 with technical qualifications in building to at least HNC level, practical experience of building construction and administration in a managerial capacity, knowledge of period and contemporary architecture and decor, and ability both to interpret clients' requirements to technical supervisors and to co-ordinate the ensuing programme of work. A flair for design and acceptability at all social levels are also essential.
Write briefly in strictest confidence.

The Managing Director (WC. 58)
EXECUTIVE APPOINTMENTS LIMITED,
78 Wigmore Street, London, W.1.

TROLLOPE & COLLS LIMITED

Require an Assistant to one of their Contract Managers to assist in the organisation and supervision of high class contracts in the London area. This post will carry excellent opportunities with membership, in due course, of the Company's Superannuation Scheme. Applicants should be about 25-30, experienced in programming, negotiations with sub-contractors and general administration of contracts from the office. Some knowledge of surveying, costing and bonusing techniques will be an advantage. Reply with full particulars and salary required, to

The Assistant Secretary,
Trollope & Colls Limited,
One Noble Street, Gresham Street,
London, E.C.2.

A SITE MANAGER

is required by a rapidly growing Building and Civil Engineering Company to take charge of housing and general contracts in the Home Counties.

The Directors of the Company wish to appoint a young man of high potential, who will develop with the Company: his immediate task will be to plan, direct and control work to the value of £500,000 per annum.

Candidates should be between 27 and 40 years of age, and preference will be given to those who have a recognised qualification in the industry.

A starting salary of over £1,500 per annum is envisaged and future rewards will be commensurate with increasing responsibility. A car will be provided, and the successful applicant will be eligible for the Company's Sickness and Pension schemes.

Applications in writing, giving full details of experience, qualifications and positions held, should be sent to URWICK, ORR & PARTNERS, LTD., who have been asked to advise on this appointment at Urwick House, 14, Hobart Place, London, S.W.1, quoting reference HRB/1394 on the envelope.

CLERKS OF WORKS

CLERK OF WORKS Required, to supervise the erection of Research Laboratory near Wantage, Berks. Knowledge of Laboratory installation would be an advantage.—Apply in writing to ARCHITECT'S CO-PARTNERSHIP, 44 Charlotte-street, W.1.

HIGHLY experienced CLERK OF WORKS Required for very large contract S.W.1 district. Applicants should have considerable experience of modern flats and office blocks. Good salary and bonus offered to suitable man.—Write with full particulars to Box 2397, "The Builder."

CLERKS OF WORKS Required for large projects, by RONALD WARD & PARTNERS, 29 Chesham-place, Belgrave-square, S.W.1. Belgravia 3361.

EXPERIENCED, reliable CLERK OF WORKS urgently Required commence work preferably now or within 6 weeks. Salary according qualifications, experience, up to £1,250. Contract, comprising 15-storey block offices, shops, etc., at Crown Site, Morden, to last about 21 months.—Apply to A. GREEN, A.R.I.B.A., 23 Fitzroy-street, W.1. LAN 5051.

BATTERSEA BOROUGH COUNCIL Require an ASSISTANT CLERK OF WORKS (BUILDING) for a minimum period of 2 years. Inclusive salary 15 guineas per week.—Applications, giving full details of past experience, age, etc., to the Borough Engineer and Surveyor, Town Hall, S.W.11, by 25th APRIL, must include the names of two referees.

BUYERS

EXPERIENCED BUYER, S.E. London. Able to prepare materials schedules from Bills of Quantities and drawings. Age, experience and salary required.—Box 2405, "The Builder."

BUYER.—Building Contractors in S.W. Outer London Require SENIOR BUYER and ORDER SURVEYOR fully experienced in ordering from drawings and conversant with present-day market prices and conditions.—Write stating age, experience and salary required to LAVENDER, McMILLAN, (CNTRS.), Ltd., 54 Cheam Common-road, Worcester Park, Surrey.

ASSISTANT BUYER Required by Building Contractors in S.W. Outer London. Must be able to prepare schedules from Drawings and Bills of Quantities.—Write stating age, experience and salary required to LAVENDER, McMILLAN (CNTRS.), Ltd., 54 Cheam Common-road., Worcester Park, Surrey.

REPRESENTATIVES

TECHNICAL REPRESENTATIVE Required for sales of chemicals for the building and civil engineering industry in London area. Age 25-45. Technical knowledge desirable in chemical or concreting spheres and experience of selling products of high merit, preferably in building industry. Contacts mainly with architects and consulting engineers. Pension scheme.—Applications in writing to: The Manager (S.D.L.3), STUART B. DICKENS Ltd., Manor-way, Boreham Wood, Herts.

REPRESENTATIVES Required by the leading company marketing Tower Cranes to the Civil Engineering industry throughout the country. Experience and established connections in the Plant and Contracting field preferred. Age 25-35. Salary and commission.—Full details in confidence, Box 2502, "The Builder."

IF you are a sales agent doing business in the Bournemouth, Portsmouth area or in South Wales, and are able to carry additional profitable lines, we offer you excellent commission terms. We are old-established manufacturers of plasticisers, waterproofers, etc., now advertising regularly in the National Trade Press and we wish to increase our sales force.—Write fully, stating area covered, to Box 2579, "The Builder."

EXPERIENCED REPRESENTATIVES,

Already calling on woodworking trades and large timber users, required in various areas to sell established line, with large and rapidly expanding potential, of heavy duty fastening equipment, including consumable fasteners. Exclusive territory and generous commission terms offered. State age, experience, territory covered to

Box 947, "The Builder".

BUILDERS ASSISTANTS

JUNIOR BUILDER'S ASSISTANT Required for Watford contractor.—Write stating experience and salary required to Box 2406, "The Builder."

TECHNICAL ASSISTANT Required for London office of national Building Contractors, must have some knowledge of builder's quantities and concrete structures.—Apply stating age, experience and salary required to Box 2556, "The Builder."

HUMPHREYS LTD.

Building and Civil Engineering Contractors
199, Knightsbridge, S.W.7

require an

ASSISTANT

age 25 to 30 in their **TECHNICAL SERVICES DEPARTMENT** for Planning and Programming and preparing working drawings, schedules, etc., for all types of Building Contracts. Sound knowledge of building construction essential and must be good draughtsman. Pension scheme. Apply, giving details of age, experience, etc., to Personnel Dept.

PLANNING ASSISTANT

required

The position carries a good salary plus bonus and is superannuable. Applicants should have sound knowledge of surveying and some estimating experience and be interested in programming and planning in all aspects. Apply in writing to:

A. E. A. PROWTING LTD.,
Bury Street,
Ruislip,
Middx.

FOREMEN & SUPERVISORS

OLD-ESTABLISHED BUILDING CONTRACTORS, N. London area. Require experienced WORKING FOREMAN, alterations, small contracts. —Write Box 2541, "The Builder."

GENERAL FOREMAN Required for Building Contractors in Reading area. Must be capable and require minimum of supervision.—Write giving full details to: TILBURY CONSTRUCTION CO., Ltd., Ruscombe Works, Twyford, Berks.

SECTION FOREMAN

C. and J. trained to work under resident General Foreman on large Factory work operations in the Birmingham area. The position is permanent and will be progressive to a suitable man.—Applications should state full details of training and experience to WILSON LOVATT & SONS, Ltd., Clarence-street, Wolverhampton.

GENERAL FOREMAN Required, Manchester area initially but must be willing to travel. Must be fully experienced. Permanent and pensionable post. —Write full details of experience, age and salary required to Box 2396, "The Builder."

KIRK & KIRK LIMITED

require

GENERAL FOREMEN

Contracts between £100,000 and £1,000,000 in England. Permanent position with Superannuation Scheme.

Write, giving fullest possible details, to:—

Technical Director,
Kirk & Kirk Limited,
Atlas Works,
Putney, S.W.15.

CARPENTER FOREMAN

(Part working) required for permanent position with Contractor South London area. Opportunity for advancement. Pension scheme available. Apply with full details of training, experience, etc. to

Box 2410

SITE AGENTS & GENERAL FOREMEN

Sir Lindsay Parkinson & Co. Ltd., invite applications for the above positions. Applicants who must be fully experienced in carrying out major building contracts of all types should forward all details to :

Building Director,
Sir Lindsay Parkinson & Co. Ltd.,
6, Lambeth Road,
London, S.E.1.

BRICKLAYER FOREMAN

(Part working) required for permanent position with Contractor South London area. Opportunity for advancement. Pension scheme available. Apply with full details of training, experience etc., to

Box 2409

GENERAL FOREMEN

Required for variety of contracts mostly S. and S.E. London areas; values between £30,000 and £100,000. Permanent and pensionable positions if satisfactory. Apply with full details of previous positions held, training etc., to

Box 2408

GENERAL FOREMAN

required. Capable of supervising several Private Enterprise Building Sites, within 15 mile radius. Car provided for experienced driver. Carpenter and Joiner by trade preferred. Permanency for right man. Superannuation scheme. Apply giving details of age, experience and salary required to

FEDERATED HOMES LTD.,
69/71 East Street, Epsom. Tele Epsom 6121.

BUILDING STAFF

Wilson Lovatt & Sons Ltd., Clarence Street, Wolverhampton, require the following staff for their expansion programme to work in the Midlands area on Building Contracts :—

GENERAL FOREMAN
SECTION FOREMAN
FOREMAN CARPENTERS
FOREMAN BRICKLAYERS
GANGERS

Applications should state full training, experience and age.

GENERAL FOREMAN

R. Durtnell & Sons Ltd., Rectory Lane, Brasted, Nr. Westerham, Kent.

Required shortly :—

First-class General Foreman to take charge of varied Contracts up to £150,000 in Southern outskirts of London. Men of experience with drive and initiative will gain a permanent position with a good salary. Write, stating age and experience, or telephone BRASTED 405.

OPPORTUNITY

Works Supervisor required by progressive Roofing and Waterproofing Contractors in West London. Preference given to young man, aged 22/30, physically fit, prepared to travel, good appearance, personality, car driver with sound knowledge of building construction. Good salary, expenses and bonus to the right man.

Box 2395

EXPERIENCED GENERAL FOREMAN Required for a large municipal flat contract in East Ham.—Apply in writing RICHARDSON, Herbert House, Slade Green, Erith, Kent.

GENERAL FOREMAN. First-class General Foreman Required by DOWSETT ENGINEERING CONSTRUCTION Ltd. for advanced Structural Contracts.—Reply to Durham-road, Gateshead-on-Tyne, or Telephone Low Fell 78081 for appointment.

EXPERIENCED GENERAL AND FINISHING FOREMEN Required for housing contracts in Home Counties and South Midlands. Applications giving details of age, experience, salary required, when available, etc., to FREDERICK J. MINNS & CO., Ltd., 9 West-way, Botley, Oxford.

GENERAL FOREMEN Required for speculative Housing and Flat Contracts in the Home Counties and Northern England.—Reply, stating trade and experience, to Mr. Lindsay, SIR LINDSAY PARKINSON & CO. Ltd., 6 Lambeth-road, London, S.E.1.

EXPERIENCED GENERAL FOREMAN Required, housing estate, Barnet area.—Write DRURY CONSTRUCTION (SOUTHERN) Ltd., 4 Farncombe-road, Worthing.

OLD-ESTABLISHED building contractors Require experienced GENERAL FOREMAN for contract in London area.—Write stating age, experience, salary, etc., to Secretary, C. P. ROBERTS & CO., Ltd., 31 High Holborn, W.C.1.

GENERAL FOREMAN Required for private development. Flats and Houses, Reigate area. Only competent men need apply.—Write stating age and salary required to Box 2314, "The Builder."

GENERAL FOREMAN Required for private development. Experienced in flats, Houses, Roads and Sewers. Redhill area.—Write stating age, experience and salary required to Box 2315, "The Builder."

GENERAL FOREMAN Required for medium-size Contract, Croydon area.—Apply in writing giving details, age, Contracts executed and salary required to GRACE & MARSH Ltd., New Bridge Works, Waddon, Croydon.

AMBITIOUS GENERAL FOREMEN who have had experience of building contracts over £25,000, Required by progressive company for post in and around London.—Write stating qualifications, experience and salary expected to SHEPPARD & SHORT Ltd., Priory House, 967 Harrow-road, Wembley, Middlesex.

EXPERIENCED FOREMAN Required by Building Contractors S.E. Essex. Write giving full details, in confidence, of past experience, age and salary required.—Box 2557, "The Builder."

GENERAL FOREMAN Required for London area. Excellent prospects if fully experienced. Write stating experience and salary required.—Box 2574, "The Builder."

GENERAL FOREMAN for small housing contract at Aveley, Essex. Good salary for right man.—Write for interview to Box 2567, "The Builder."

GENERAL FOREMAN Required for medium-size alteration contract Croydon area. Write stating experience, salary required and when available.—Box 2575, "The Builder."

PAINTING SUPERVISOR Required, experienced in School and other painting contracts in London area. Able to estimate and measure. Good handler of men and able to drive.—Box 2569, "The Builder."

FOREMAN (C. & J.). Experienced in alterations, decorative joinery, finishing trades, general building.—Apply Director, HEAL'S Building Department, 196 Tottenham Court-road, W.1.

GENERAL FOREMEN, experienced housing and flats, Surrey/Hampshire area.—DRURY CONSTRUCTION (SOUTHERN) LIMITED, 4 Farncombe-road, Worthing.

CONTRACTOR'S SITE STAFF Required for Dam construction contracts in Central and North Wales, including :—

GENERAL SUPERINTENDENTS and GENERAL FOREMEN with some years' experience in similar positions on medium/heavy civil engineering contracts.

GENERAL FOREMAN with major industrial building experience for Power Station site.

FOREMAN JOINER with shuttering experience on heavy concreting.

Men up to 45 years of age should write, stating age, experience and salary required, to :—

The Personnel Officer,
THE CEMENTATION CO. Ltd.,
20 Albert-embankment,
London, S.E.11.

FOREMEN

TROLLOPE & COLLS LIMITED have vacancies in their Reinforced Concrete Department for experienced **FOREMEN.**

Permanent posts are offered to the right men, with good salaries and considerable future prospects.

Applications, giving fullest particulars of past experience, should be addressed to:

The Assistant Secretary,
Trollope & Colls Ltd.,
One Noble Street, Gresham Street,
London, E.C.2

E. & J. COTTON LIMITED,

Building Contractors
High Street, Iver, Bucks.

Require

GENERAL FOREMEN

for

varied types of Contracts in Bucks, Berks, Hants, Oxon, and North Surrey.

Senior and Junior vacancies exist, permanent positions and good salaries for the right type of men.

Ring Mr. South, Iver 506, for appointment or write with full details.

Richard Costain

(CONSTRUCTION) LIMITED

i, **Senior General Foreman** required in Poole, Dorset, for a £180,000 factory and warehouse contract. Applications will only be considered from those with good experience in this class of work which requires a high standard of finish. Applicants must be capable of engaging, organizing and controlling local labour force and be able to work to a tight schedule.

ii, Fully experienced **General Foreman** required for a £120,000 contract in Bristol. Excellent prospects for first class man.

Applications in writing to :

Area General Manager,
Richard Costain (Construction) Limited,
Brunel House, College Green,
Bristol, 1.

GENERAL FOREMAN Required for building bungalow estate, Hants and Dorset borders.—Write to DAVIES ESTATE OFFICE, Canford Chambers, St. Peters-road, Bournemouth Hants, stating experience, etc. Telephone: Bournemouth 23262.

RUSH & TOMPKINS LIMITED

require

GENERAL FOREMEN
QUANTITY SURVEYORS · TIMEKEEPERS

for building contracts in Abergavenny and Newport areas. Please write full details to **Rush & Tompkins Ltd., 109 Station Road, Sidcup, Kent.**

KYLE, STEWART (CONTRACTORS) LTD.

require

AGENTS AND GENERAL FOREMEN

in London and Home Counties for contracts between £100,000 and £500,000 in value.

Must be experienced in all aspects of the trade, possess drive and initiative and up-to-date knowledge of mechanical plant management.

Participation in Company's Bonus and Pension Schemes. Salary four figures offered to successful applicants who will have opportunity for advancement to the position of Contracts Manager.

Apply in writing, stating experience and salary required to:

Managing Director, Kyle, Stewart (Contractors) Ltd., Ardshiel House, Empire Way, Wembley, Middlesex

MARRIOTTS OF THE MIDLANDS

Contract Supervisors required by this progressive Provincial Company for contracts in Midlands or the South. Duties include pre-planning and programming, and control of interesting contracts.

Keenness and progressive ideas on planned building essential. Age range 25/35 years. I.O.B. or similar qualifications an advantage. Good salary and bonuses.

Apply in writing, giving details of experience to:—

Robert Marriott Limited,
Midland Works,
RUSHDEN, Northamptonshire

GENERAL FOREMAN

National Contractor requires experienced General Foreman in the London area for Industrial Building Contract. A sound knowledge of building technique together with reinforced concrete construction and good organising ability is essential.

The appointment is permanent and progressive. Pension and Bonus Schemes in operation. Full particulars to:

Box No. 2568, "The Builder"

GENERAL FOREMEN

required by old established firm for a variety of Contracts value £40,000—£300,000, consisting of Houses, Schools, Flats, Factories, etc. mostly in London or Hertfordshire area. Prepared to pay good salary to men with experience, ability and drive. Write giving details of experience, age, etc.

Box 2580 'The Builder'

SUPERVISOR

Firm of National Contractors in Westminster area require a supervisor for their Small Works and Maintenance Division. Good appearance and address are necessary, together with a first-class knowledge of the job. Write, giving the fullest particulars in the first instance to the

Managing Director,
Box 2520
"The Builder"

SITE AGENTS

Applications are invited from AGENTS fully experienced in carrying out large building contracts of reinforced concrete construction. Write in confidence, stating age, experience and salary required to:

Personnel Manager,
FORD & WALTON,
Walton House, Warton Road,
London, E.15

FIRST-CLASS GENERAL FOREMAN

required for large important development. Good salary and a bonus. Write giving age and particulars of past experience to

Box No. 2542 "The Builder"

DRABBLE CONSTRUCTION LTD.

SITE AGENTS

are required for housing contracts recently acquired in Southern Counties.

Only men with the best experience and capable of producing a high output of the best quality should apply. The salary paid will be generous but according to qualifications and experience.

Apply: **Drabble Construction Ltd., 11 Station Road, Marlow, Bucks.**

CUBITTS

Applications are invited from:—

AGENTS AND GENERAL FOREMEN

well experienced in control of general heavy civil engineering construction, and from

SENIOR AND JUNIOR CIVIL ENGINEERS

for work on site or at Head Office

Please send full details, in confidence, to:—

PERSONNEL MANAGER (B/J.5438)
HOLLAND & HANNEN and CUBITTS (GREAT BRITAIN) LTD.
1, QUEEN ANNE'S GATE,
LONDON, S.W.1

AGENTS

AGENT Required to take charge of major Civil Engineering and Structural Works. Good salary and excellent prospects are available for the right man possessing firm leadership and outstanding ability in Contract organisation.—Reply to Managing Director, DOWSETT ENGINEERING CONSTRUCTION Ltd., Durham-road, Gateshead-on-Tyne.

BUILDING AGENTS Required for factory construction and general building contracts by well-known firm of London contractors to work from their Cheshire office. Over 30 years of age. Good salary and prospects with pension scheme.—Write Box 2591, "The Builder."

AGENT GENERAL FOREMAN for £90,000 contract in Morden. Experienced in cost control, planning and modern methods. State salary required and name of principals for references.—Apply C. NEAL & SON Ltd., East-lane, West Horsley, Leatherhead, Surrey.

CARPENTERS & JOINERS

SETTER-OUT Required used to Purpose Made Joinery. Permanent position.—Write to: FOSTERS (WOODWORKERS) Ltd., Smarts-lane, Loughton, Essex.

CITY Builders Want FOREMAN JOINER who can take clients' instructions and carry out various small contracts, look after all trades, etc.—Write, stating age, salary, Box 2566, "The Builder."

CARPENTER AND JOINER, OUTSIDE FOREMAN/SUPERVISOR Required by small expanding building contractors, Guildford. Must be experienced in handling new and conversion work. Permanent position. Apply in writing stating age, experience and wages required.—Box 2589, "The Builder."

BRICKLAYERS

WORKING FOREMAN BRICKLAYER Required for Small Works Department of well-established firm. Excellent prospects of promotion for right man.—Apply, giving experience, salary required, COURTNEY & FAIRBAIRN Ltd., 377 Albany-road, Camberwell, S.E.5.

CLERKS

WAGES CLERK (Male, 25-40 years), Required by North London Plastering Contractor. Good prospects in expanding business for person capable of using own initiative. Must have general all-round experience in P.A.Y.E., costing, book-keeping, typing, etc.—Write giving age, experience, previous or past employer, salary, Box 2500, "The Builder."

WAGES CLERK (Male) Required immediately. Thorough knowledge of building working rules, P.A.Y.E. and H.W.P. essential. Pension scheme available.—Write, giving age, experience and salary anticipated to DEARSLEY & CARTER Ltd., 91 & 93 King-street, Hammersmith, W.6.

WAGES CLERK (male or female) Required for small but busy Wages Department of S.W.1. Company. Knowledge of building trade preferable but not essential. Commencing salary according to age and experience plus Luncheon Vouchers. No Saturdays.—Please write stating age, experience and salary required to Box 2461, "The Builder."

TYPIST AND GENERAL OFFICE DUTIES for Quantity Surveyors, W.C.1.—Experience, age and salary required to Box 914, "The Builder."

YOUNG COST CLERK with experience of estimating in contractor's office. Required for interesting position assisting Chief Estimator in Quantity Surveyor's office on preparation of approximate estimates, pricing final accounts, etc. Age 22-30. Salary £600-£1,000 p.a. according to experience, plus overtime. Good prospects for advancement.—Box 2558, "The Builder."

CLERICAL ASSISTANT Required in Surveying Department of National Contractors' office in West Middlesex. The person appointed will be responsible to the Chief Surveyor for all clerical matters connected therewith. This position is permanent and pensionable with good prospects for advancement.—Apply in writing to JAMES MILLER & PARTNERS, Ltd., Pump-lane, Hayes, Middlesex.

WAGES AND SITE CLERK Required for Hampstead area. Knowledge of H.W.P. and W.R.A. essential.—Ring E. H. BURGESS Ltd., 34 Grosvenor-gardens, S.W.1. Sloane 8181.

SITE AGENT

Due to ill health an immediate vacancy exists for an experienced Agent to take charge of a large multi-storey building contract in Lancashire. Generous salary, out allowance and use of Company vehicle for man capable of controlling R.C. construction, all building trades and sub-contractors. This is a permanent appointment with excellent prospects of promotion. Pension fund in operation. Reply in confidence, quoting reference SC.10, stating age, previous experience in this class of work to

CONTRACT LABOUR DEPARTMENT,
SIMON-CARVES LIMITED,
CHEADLE HEATH,
STOCKPORT, CHESHIRE.

SENIOR CLERK Required for Sanitary and Heating Engineers, London Office. Knowledge of Building Trade Conditions essential, including Working Rule Agreements, P.A.Y.E., Daywork, Final Bill and Interim Valuation. Excellent opportunity for right man who must be energetic, hard-working and of the highest integrity. Five-day week; contributory Staff Superannuation; Bonus Scheme.—Apply in writing, stating full qualifications and experience, salary required, to Office Manager, ARTHUR SCULL & SON Ltd., Kingsway House, Kingsway, London, W.C.2.

SALES CLERK (male) Required for London Office of Brick and Tile Manufacturers. Must be able to conduct own correspondence and prepare quotations and estimates. Knowledge of typing desirable. Experience of Building Trade an advantage.—State age, experience and salary required, Box 2570, "The Builder."

APPLICATIONS invited for MALE ACCOUNTS CLERK/BOOK-KEEPER for responsible position Brighton Heating and Domestic Engineers. Age 25-30. Previous experience necessary. State present salary and qualifications.—Box 2588, "The Builder."

CLERK Required for Invoice Department. Knowledge of Building Materials essential. Excellent salary and prospects. Details of experience, etc., to Office Manager, TERSONS, Ltd., 4 Dollis-park, Finchley, London, N.3.

SITE CLERKS Required in London and the Provinces. Knowledge of Wages, P.A.Y.E., and W.R.A. essential. Graded salaries. Superannuation after trial period.—Applications to Internal Auditor, TERSONS LTD., 4 Dollis-park, Finchley, London, N.3.

CLERK. Young man (20-25) Required for City Builder's office. General duties—ordering, checking accounts, etc—some knowledge of trade desirable but not essential. Good opportunity for keen person. —J. C. MATHER Ltd., BIS 9033/7126.

BUILDER'S CLERK Required for general routine and accounting, for office in South West London.—Write full details to Box 2545, "The Builder."

EXPERIENCED COST CLERK Required for Building and Civil Engineering Contractors in London. Duties will include maintenance of contract ledgers, preparation of Contract Cost Statements, etc. Salary about £700 p.a.—Box 2543, "The Builder."

EXPANDING BUILDING AND CIVIL ENGINEERING CONTRACTORS Require male or female CLERK, able to use rotary calculator with knowledge of contractors wages, materials, etc. Permanent pensionable position with progressive salary. —WALTER SMITH (CONTRACTORS) LIMITED, Bullfinch-lane, Riverhead, Sevenoaks.

MISCELLANEOUS

SHOPFITTING. JUNIOR ASSISTANT Required by progressive Shopfitters. Age 21/23, previous experience and O.N.C. preferred.—Write giving full details to CONSTRUCTIONAL UNITS Ltd., Storefitting Division, Oxgate-lane, N.W.2.

A CHECKER (Materials Checker) Required by large Company of Estate Developers for three-year term in Cambridge. Good salary and excellent prospects of advancement.— Chief Surveyor, McMANUS & Co., Mimms Hall-road, Potters Bar, Middx.

STOREKEEPER, housing department. Required by Lambeth Borough Council. Salary £650 p.a. rising to £715 p.a. plus London Weighting £20/£30 p.a. (Misc. V). Duties include keeping adequate stocks of building materials, receiving and issuing stores, supervision of transport, and maintenance of stores records. Candidates must have a wide knowledge of materials used in the building trade and be accurate at figures. Superannuation scheme. No housing provided. Applications in writing, with names of two referees to Director of Housing, 65/67 Brixton Hill, S.W.2, not later than 25th April (quote Ref. 121a).

OVERSEAS APPOINTMENTS

Prepaid rate, 24 words, 8/6; additional 6 words, 2/-. Box number, including Forwarding Replies, 2/-.

JOB LEADER (Architect) wanted for design and construction of important overseas university buildings. Two year contract. Commission on new work.—Particulars to HENING & CHITTY, 30 Percy-street, London, W.1.

HENING & CHITTY Require ASSISTANT ARCHITECTS (£850-£1,000) for new and interesting work. Particulars to 30 Percy-street, London, W.1.

A SENIOR resident QUANTITY SURVEYOR, age 30 to 45 and fully qualified. Required by Professional firm for branch office in West Africa. Preliminary period to be spent in London office. Accommodation, passages and transport provided for surveyor and family.—Apply, stating qualifications and experience, to Box 912, "The Builder."

RESIDENT QUANTITY SURVEYORS Required for West African office of Professional firm on work covering measuring, pricing and agreeing final accounts, etc. Free accommodation, transport and passages provided; 18 month tours. Age not under 25.—Apply, stating qualifications and experience, to Box 917, "The Builder."

ARABIAN GULF. QUANTITY SURVEYOR Required by professional firm. Eighteen month tour with preliminary period in London office. Substantial salary with accommodation and car allowance provided. No local income tax. Bachelor preferred age over 25.—Apply stating qualifications and experience to Box 987, "The Builder."

TAKERS-OFF of Intermediate to Final Standard required by Westminster Quantity Surveyors to work in the London office. Excellent opportunities for proceeding to Branch Offices overseas as resident surveyors as and when vacancies arise.—Apply stating age and qualifications, Box 941, "The Builder."

CUBITTS

OVERSEAS OPPORTUNITIES

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Bryce, White & Co., Ld. ... 70
Builders' Estimating Service, Ld. ... 119
Building Engineering Contractors (Lndn.), Ld. ... 81
Byrd, A. A., & Co., Ld. 79

Contracts ... 83
C. & S. Construction Co., Ld. ... 100
Canadian Government 34
Caswell Cranes & Erection, Ld. ... 106
Causeway Reinforcement, Ld. ... 90
Cayless Bros., Ld. ... 103
Cement Marketing Co., Ld. ... 17
Cementation Co., Ld. *Inside Back Cover*
Central Flooring Co. ... 107
Chalfont Clamps, Ld. ... 93
Chamberlain Plant, Ld. —
Chimneys, Ld. ... 93
CIBA (A.R.L.), Ld. ... 40
Clark, J., & Eaton, Ld. 19
Cloke, Geo. E., Ld. ... 98
Cole, E. R., Ld. ... —
Colt Ventilation, Ld. —
Compton, J., Sons & Webb ... 73
Concrete Mouldings (Boreham), Ld. ... 6
Conex-Terna, Ld. ... 44
Contractors' Services, Ld. ... 106
Cooke, J., & Son (Hudd.), Ld. ... 93
Cooper, H. W., & Co., Ld. ... —
Cope & Co., Ld. ... 100
Cox & Danks, Ld. ... 12
Cox, H., & Sons, Ld. 105
Cox, P., & Ptnrs., Ld. 99
Cradle-Scaff ... 93-99-101
Craggon & Co., Ld. ... 96

Dalton, Ballard & Co., Ld. ... 104
Damp-proofing, Ld. ... 101
Damsura, Ld. ... 93
Dandridge, A. F., Ld. 105
De Gay Flooring, Ld. 96
Doe, E., & Sons, Ld. ... 92-104
Dorman Long (Steel), Ld. ... 21
Dunkley, G. ... 96

Elgood, E. J., Ld. 95-96-97
Ellis School of Building 120
English Joinery Mfrs. Assoc. (Inc.) ... 22
Essex Steel Scaffolding Co., Ld. ... 768
Evode, Ld. ... 3
Excel Asphalte Co., Ld. ... 93

Expandite, Ld. 93-95-97-103

Falk, Stadelmann & Co., Ld. ... 91
Falkus Bros., Ld. ... 62
Farr, E., Ld. ... 100
Farrar, E., Ld. ... 97
Fawcett Construction Co., Ld. ... 47
FEB (G.B.), Ld. ... 7
Fed. of Master Bldrs. 768
Felts & Dampcourses, Ld. ... —
Finlock Gutters, Ld. ... 48
Fitton, S. & J. (Tarpaulins), Ld. ... 100
Fletcher & Dixons, Ld. 6
Fluid Glass Prods., Ld. 95
French, T., & Sons, Ld. 30
Furse, W. J., & Co., Ld. 98

Galbraith Bros., Ld. ... 768
Ga Council .. *Back Cover*
G. C. Constructional Flooring Co., Ld. ... 95
GEM Electrical ... 105
Graceline Units, Ld. ... 9
Greenwich Pump & Plant Co., Ld. 101-107
Greenwood's & Airvac Ventilating Co., Ld. 10
Grey, C. C. ... 96
Gyproc Prods., Ld. ... 102

Hall, J., & Sons (Bristol & Lndn.), Ld. ... 77
Harland Eng. Co., Ld. 33
Harris & Bailey, Ld. ... 105
Harvey, G. A. & Co. (Lndn.), Ld. ... 41
Healey & Baker ... 122
Heatrae, Ld. ... 54
Hilger & Watts, Ld. ... 82
Hirschhorn, E., & Co., Ld. ... 93
Hook's Joinery Works, Ld. ... —
Hope, H., & Sons, Ld. 72
Horsley, Smith & Hewetsons ... 73
Howden, G. & H. ... 107
Howard & Co. ... —

ICI, Ld. ... 8-20
Industrial Pumps, Ld. 54
Inst. CoW ... 121
International Harvester Co. of G.B., Ld. ... 25
Ivanhoe Fencing Co. ... 95

Jaflo Plastics Inds., Ld. ... —
James Joinery ... 107

Janitor Boilers, Ld. ... 30
Johnson, C. H. (Machinery), Ld. ... —
Johnson's Reinforced Con. Eng. Co., Ld. *Cover*

Kay & Co. (Engs.), Ld. —
Kango Electric Hammers, Ld. ... 3
Kerner-Greenwood & Co., Ld. ... 58
Kerr, R., & Sons, Ld. 95
King, Geo. W., Ld. ...
Kittridge Flg. Ld. ... 107
Kwikform, Ld. ... 14

Lafarge Aluminous Cement Co., Ld. ... 65
Leander Prods., Ld. ... 95
Lesley, D. (Contractors), Ld. ... 107
Lillington, G., & Co., Ld. ... 18-37-98
Liner Con. Mach. Co., Ld. ... —
Liquitile Supply Co., Ld. ... 88
Lockwood, R. W. ... 107
London Assoc. of Builders' Foremen & CoW ... 108
Luxfer, Ld. ... 16-98
Lytag, Ld. ... 78

Macnamara, J., & Co., Ld. ... 103-104-106
Magart, Ld. ... 95
Magnet Joinery, Ld. ... 26
Mallinson, W., & Sons, Ld. ... 69
Marley Concrete, Ld. 64-70
Marley Tile Co., Ld. ... 67
Martyn, B., Ld. ... 95
Mellor Bromley & Co., Ld. ... 47
Merchant Trading Co., Ld. ... 80
Merthyrware Tiles, Ld. 68
Metway ... 89
Midland Woodworking Co., Ld. ... —
Miller, Wm., (Newcastle), Ld. ... 31
M.K. Electric, Ld. ... 59
Moore's Plant, Ld. 105-106
Morgan Cranes ... 105
Mullen & Lumsden, Ld. ... 60

National Federation of Clay Inds. ... 9
Natural Asphalte Mine Owners & Mfrs.' Council ... 63

New Stone & Restoration, Ld. ... 99
Newtons of Wembley, Ld. ... 80
Nicoll, Dawson & Humphries, Ld. 94-99-105

Oddi Asphalte, Ld. ... 93
Olsson, M., & Sons, Ld. 35
Orlit, Ld. ... 100
Ornamental Gate Co. .. 77

Paine of Abridge ... 106
Palmers Travelling Cradle & Scaffold Co., Ld. ... 94-99-101
Panel-Lastic Construction Co., Ld. ... —
Paniquil (Sales), Ld. ... 4
Parkinson, E. (Lndn.), Ld. ... 98
Parsons, W. G., & Sons 82
Pearson, J., & Sons (London), Ld. ... 98
Permanite, Ld. .. 93-95-99
Plunkett, A. J., & Co. Ld. ... —
Podmore Works .. 103-105
Pollock Bros. (London), Ld. ... 98
Polybond, Ld. ... 52
Poulton & Sons, Ld. 93

Radiation Group Sales, Ld. ... 43
Rapid Metal Developments, Ld. ... 27
Reid, J., & Sons, Ld. 97
Richardson, P. C., & Co. (M'brough), Ld. 93
R.I.W. Protective Prods. Co., Ld. ... 81
Roberts, Adlard, & Co., Ld. ... 15
Royde & Tucker, Ld. 98
Ruberoid, Ld. ... 55

Salter, Edwards & Co., Ld. ... 93
Saygus Scaffolders, Ld. 94
Seaboard Lumber Sales, Ld. ... 32-56
Sealocrete, Ld. ... 23
Shapland & Petter, Ld. 96
Shot Blasting & Metal Spraying Co., Ld. ... 104
Simmons, W. & E., Ld. 57
Simplex Con. Piles, Ld. 99
Sitefinders, Ld. ... 121
Site Survey Co. ... 120
Skinner, W. A., & Co., Ld. ... 95

Sloggetts (Plant Hire) 106
Smith, H. V., & Co., Ld. ... 93
Sommerfelds, Ld. ... —
Southern Asphalt, Ld. 93
Spiers, H. A., & Co., Ld. ... 103
Standard Range & Foundry Co., Ld. .. 2
Stella Bldg. Prods., Ld. 44
Stephens & Carter, Ld. 95-99-101-106
Stevens & Adams, Ld. 768
Stirton Partners, Ld. 64
Sundeala Board Co., Ld. ... 24
Symes (Plant), Ld. .. 107
Szerelmey ... 99

Tayco Boilers, Ld. ... 45
Taylor, J. (System), Ld. ... 105
Technical Estimating Services ... 119
Thorn, J., & Sons, Ld. 29
Thornborough & Son (Manchester), Ld. .. 101
Thornton, W., & Sons, Ld. ... 98
Tibbetts, W., & Sons, Ld. ... 48
Tile Floors (Ind.), Ld. 82
Toms Trading Co., Ld. 101
Topping & Leggat ... 94
Tradex Meter Co., Ld. 103
Travis & Arnold, Ld. 46
Tretol, Ld. ... 5
Trianco, Ld. ... 16
Truscon, Ld. ... 99
Turner, R. M., & Hunters, Ld. ... 77
Tunnel Portland Cement ... 75
Tyrol Sales, Ld. ... 31

Villiers Eng. Co., Ld. 66

Wachal Flooring Co. .. 105
Wade, Wilton, E., & Son ... 94
Warry Eng., Ld. ... —
Watco (Sales), Ld. .. 12
Weil, J., & Son, Ld. .. 28
Wessex Holdings (Slape), Ld. ... 70
Weybridge Eng. Co., Ld. ... 105
Whitehouse, A. E., Ld. 85
Williams, J., of Cardiff, Ld. ... 40
Winterburn, F. A., Ld. 762

Yeates, T. K., & Hanson, Ld. ... 95

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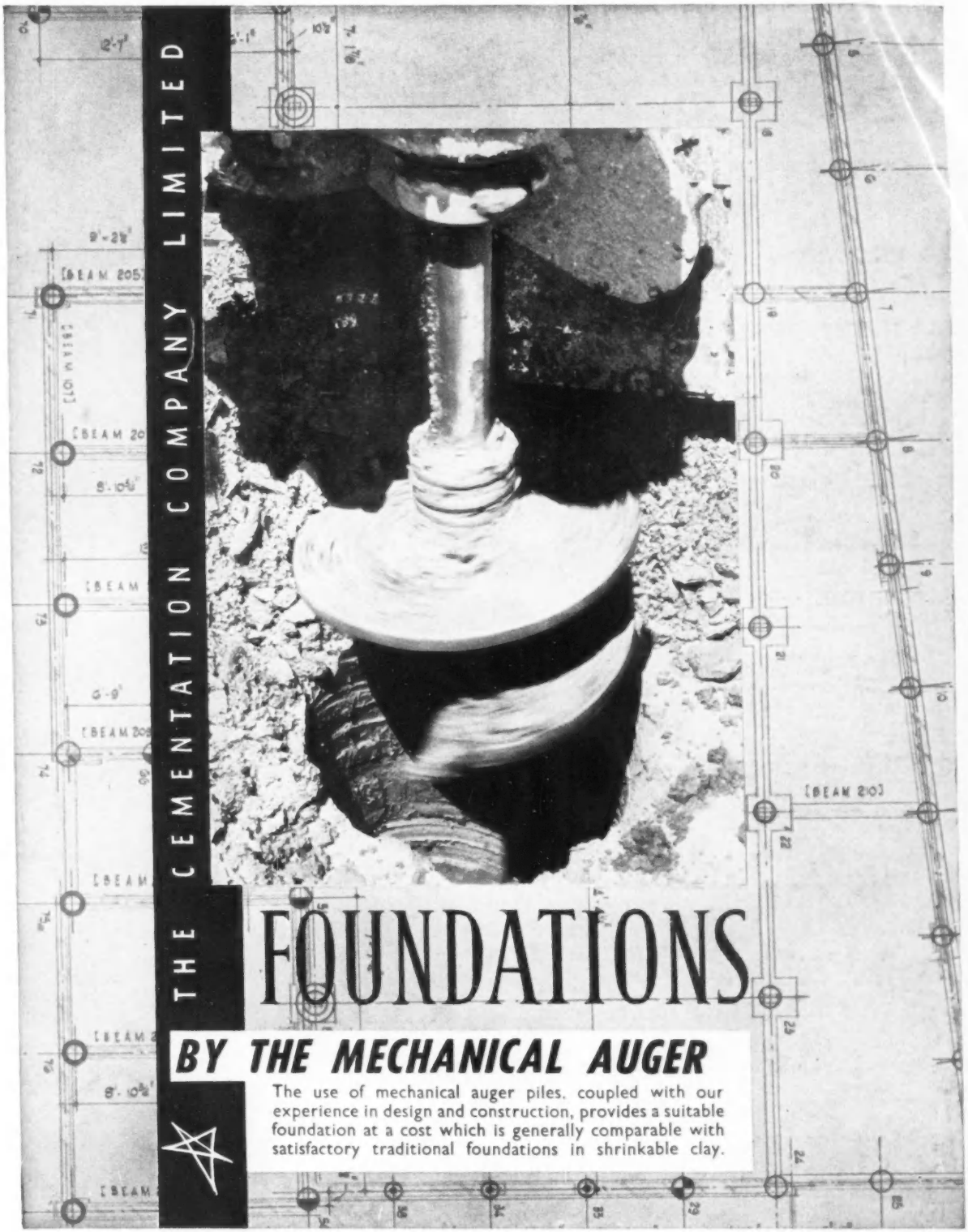

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